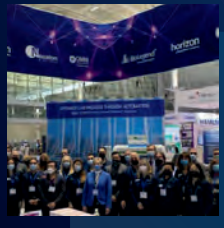
TRANSFORMING TOGETHER



2021 Annual Report

PerkinElmer®
For the Better

Dr. Prahlad Singh
President & CEO

Now, as I look back on 2021, it was clearly the year of portfolio transformation and our evolution into the 'new PerkinElmer'.

Dear Fellow Shareholders,

For both PerkinElmer and the world, 2021 was a year marked by significant transformation. Within the company, last year was the culmination of immense internal work that has taken place over the past three years. Following the organizational changes we made and programs we implemented in 2019 around refocusing our commercial and operating teams, we saw the output from those changes shine through in 2020 as we quickly responded to the challenges and opportunities presented by the pandemic. Now, as I look back on 2021, it was clearly the year of portfolio transformation and our evolution into the "new PerkinElmer." Moving ahead, 2022 is expected to be the beginning of an exciting acceleration in our growth driven by the progress we have made over the last several years.

Reflecting on our portfolio transformation, we have significantly expanded our scale in the faster growing areas of Life Sciences and Diagnostics through nine acquisitions over the past 14 months. These additions have already delivered strong performance, with substantial revenue growth in 2021. Within Diagnostics, Immunodiagnostic Systems joined PerkinElmer bringing its endocrinology, autoimmune and infectious disease focused testing menu which seamlessly fits with our EUROIMMUN immunodiagnostics portfolio. In addition, the acquisition of Oxford Immunotec provided entry into the sizable testing market for latent tuberculosis, the deadliest infectious disease in the world behind COVID-19.

Colleagues from around the world, including our EUROIMMUN, Oxford Immunotec and IDS teams, attended the 2021 AACC Annual Scientific Meeting & Clinical Lab Expo event in Atlanta, GA.

On the Life Science front, we welcomed the additions of BioLegend, Nexcelom, Sirion and Horizon Discovery into the PerkinElmer family which have not only bolstered our offerings in the pre-clinical space, but also allow us to now provide a differentiated offering within the exciting cell and gene therapy market. We see tremendous potential and opportunities for new innovations through collaborations among all our businesses, and I am excited about what we are already learning from each other. In November, we held a company-wide Innovation Summit at the headquarters of BioLegend, a leading developer and manufacturer of high-quality antibodies and reagents. This was a terrific way to start building the foundation for and share ideas around the many product and technology collaborations in front of us.

Close to 90 employees from across the PerkinElmer family came together at the 2021 Innovation Summit held at BioLegend's headquarters in San Diego, CA to share ideas, build connections, and explore cross-company synergies.

Outside of Diagnostics and Life Science, our other market segments are focused on delivering exciting new product launches over the coming months that will meaningfully impact our business moving ahead. In both our Food and Applied Markets businesses, we have stepped up R&D investments to ensure that we can continue to deliver the products our customers need to help solve their most specific challenges.

In addition to significantly strengthening our portfolio, our team has been hard at work executing on several key strategic priorities that we outlined last year. Within Operational Excellence for example, our Integration Transformation Office has created opportunities for collaboration and helped ensure that we remain committed to our acquisition-specific approach to successful integration.

Specific to innovation, our R&D teams have continued to push the boundaries of what is possible, delivering even more advanced products to the market faster and more efficiently, with new product introductions up 15% in 2021. And looking at how we engage with and serve our customers, we have seen tremendous progress with our Global Commercial Office and its initiatives to further digitize the customer experience, which have already changed the way we work with and strengthen our connections with customers. And last but certainly not least, the thing I am most proud of is how we have significantly enhanced our focus on culture and our people.

A colleague at our Lighthouse Lab in Newport, UK processes COVID-19 samples on our JANUS® G3 Blood iQ™ Workstation.

Our reinvigorated culture is one centered around entrepreneurial spirit, agility, teamwork and inclusivity. I am especially pleased with the initial momentum we've built around our ESG goals, specifically around talent development, employee engagement as well as diversity, equity and inclusion, and look forward to sharing more progress in the months ahead.

Even with all of the exciting changes and meaningful progress that has taken place across PerkinElmer, at the end of the day, the most important measure of our success comes down to the impact that we make across science and healthcare. And today, that impact is much more profound than ever before.

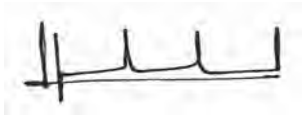
In 2021, 140 million PerkinElmer tests were used to screen babies in over 100 countries for various disorders - saving the lives of an average of 70 babies each day, and to date, more than 735 million babies have been tested for life-threatening diseases using PerkinElmer's newborn screening tools.

Within food testing, 90% of the world's commercially traded wheat crop is tested for quality or safety using PerkinElmer solutions, which can detect food fraud in as little as 30 seconds. PerkinElmer is providing environmental scientists and researchers with technologies to better understand the prevalence and sources of the over 14 million tons of microplastics that are churning through our oceans, posing a threat to both the marine ecosystem and humans.

PerkinElmer's discovery solutions and services are used by 47 of the world's top 50 leading pharmaceutical companies, to help them work towards finding novel therapeutics to combat the world's toughest diseases and viruses. And leveraging our OneSource strategic consulting and laboratory support services, scientists have been able to focus on their research instead of lab management activities, returning more than 100,000 hours back to science. Specific to COVID-19, to-date our workflow solutions have helped test more than 75 million individuals around the world during this pandemic.

I'm extremely proud of and grateful for our now more than 16,000 colleagues for leading with science, their deep-seated commitment to our mission, and the support that they give to one another, our customers and communities. Fundamental to the heart and soul of PerkinElmer has always been our dedication to innovation and passionate people who want to transform the future of health and science. Today, I could not be more excited about where we are and where PerkinElmer is headed. I look forward to seeing how we can continue to help our customers advance their science like never before, to contribute to a better and healthier world.

Regards,



Prahlad

CORPORATE GOVERNANCE

BOARD OF DIRECTORS

Prahlad Singh, PhD
President and Chief Executive Officer
PerkinElmer, Inc.

Peter Barrett, PhD
Partner, Atlas Venture

Samuel R. Chapin
Retired Executive Vice Chairman
Bank of America Merrill Lynch

Sylvie Grégoire, PharmD
Co-founder and Executive Chair
EIP Pharma, Inc.

Alexis P. Michas
Managing Partner
Juniper Investment Company, LLC

Michel Vounatsos
Chief Executive Officer
Biogen Inc.

Frank Witney, PhD
Former Chief Executive Officer
Affymetrix, Inc.

Pascale Witz
Founder and President
PWH Advisors

CORPORATE OFFICERS

Prahlad Singh, PhD
President and Chief Executive Officer

Joel S. Goldberg
Senior Vice President, Administration, General Counsel and Secretary

James M. Mock
Senior Vice President and Chief Financial Officer

Daniel R. Tereau
Senior Vice President, Strategy and Business Development

Miriame Victor
Senior Vice President, Chief Commercial Officer

Tajinder Vohra
Senior Vice President, Global Operations

Andrew Okun
Vice President, Chief Accounting Officer and Treasurer

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, DC 20549

Form 10-K

(Mark One)

☑ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended January 2, 2022
or

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from _____ to _____
Commission file number 001-5075

PerkinElmer, Inc.

(Exact name of registrant as specified in its charter)

Massachusetts	**04-2052042**
(State or other jurisdiction of incorporation or organization)	*(I.R.S. Employer Identification No.)*
940 Winter Street, Waltham, Massachusetts	**02451**
(Address of Principal Executive Offices)	*(Zip Code)*

(781) 663-6900
(Registrant's telephone number, including area code)

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, $1 Par Value	PKI	The New York Stock Exchange
1.875% Notes due 2026	PKI 21A	The New York Stock Exchange

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

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

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

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or Section 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 and post such files). Yes ☑ No ☐

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

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

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

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

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

The aggregate market value of the common stock, $1 par value per share, held by non-affiliates of the registrant on July 2, 2021, was $17,332,583,779 based upon the last reported sale of $155.57 per share of common stock on July 2, 2021.

As of February 25, 2022, there were outstanding 126,183,492 shares of common stock, $1 par value per share.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of PerkinElmer, Inc.'s Definitive Proxy Statement for its Annual Meeting of Shareholders to be held on April 26, 2022 are incorporated by reference into Part III of this Form 10-K.

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PART I

Item 1. *Business*

Overview

We are a leading provider of products, services and solutions for the diagnostics, life sciences and applied markets. Through our advanced technologies and differentiated solutions, we address critical issues that help to improve lives and the world around us.

Our headquarters are in Waltham, Massachusetts, and we market our products and services in more than 190 countries. As of January 2, 2022, we employed approximately 16,700 employees. Our common stock is listed on the New York Stock Exchange under the symbol “PKI” and we are a component of the S&P 500 Index.

We maintain a website with the address http://www.perkinelmer.com. We are not including the information contained in our website as part of, or incorporating it by reference into, this annual report on Form 10-K. We make available free of charge through our website our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to these reports, as soon as reasonably practicable after we electronically file these materials with, or otherwise furnish them to, the Securities and Exchange Commission.

Our Strategy

Our strategy is to develop and deliver innovative products, services and solutions in high-growth markets that utilize our knowledge and expertise to address customers’ critical needs and drive scientific breakthroughs. To execute on our strategy and accelerate revenue growth, we focus on broadening our offerings through both the investment in research and development and the acquisition of innovative technology. Our strategy includes:

- Strengthening our position within key markets by expanding our global product and service offerings, maintaining superior product quality and driving an enhanced customer experience;
- Attracting, retaining and developing talented and engaged employees;
- Accelerating transformational innovation through both internal research and development and third-party collaborations and alliances;
- Augmenting growth in both of our core business segments, Discovery & Analytical Solutions and Diagnostics, through strategic acquisitions and licensing;
- Engraining focused operational excellence to improve organizational efficiency and agility; and
- Opportunistically utilizing our share repurchase programs to help drive shareholder value.

Recent Developments

As part of our strategy to grow our core businesses, we have recently taken the following actions:

Acquisitions in Fiscal Year 2021:

In fiscal year 2021, we completed the acquisition of BioLegend, Inc. ("BioLegend") and paid an aggregate purchase price of $5.7 billion, net of cash acquired of $292.4 million, reflecting working capital and other adjustments (the "Aggregate Consideration"). The Aggregate Consideration was paid in a combination of $3.3 billion in cash and shares of our common stock having a value of approximately $2.6 billion based on the $187.56 per share closing price of our common stock on the New York Stock Exchange on September 17, 2021 (the "Stock Consideration"). The Stock Consideration consisted of 14,066,799 shares of our common stock and was issued on September 17, 2021 in a private placement pursuant to an exemption from registration under the Securities Act of 1933, as amended (the "Securities Act"), provided by Section 4(a)(2) of the Securities Act. BioLegend is recognized as a leading, global provider of life science antibodies and reagents headquartered in San Diego, California, with approximately 700 employees.

In fiscal year 2021, we also completed the acquisition of seven other businesses for aggregate consideration of $1.2 billion. The acquired businesses include Oxford Immunotec Global PLC ("Oxford"), a company based in Abingdon, UK with approximately 275 employees, for total consideration of $590.9 million, Nexcelom Bioscience Holdings, LLC ("Nexcelom"), a company based in Lawrence, Massachusetts with approximately 130 employees, for total consideration of $267.3 million, and five other businesses, which were acquired for total consideration of $331.0 million.

Business Segments and Products

We report our business in two segments: Discovery & Analytical Solutions and Diagnostics.

Discovery & Analytical Solutions Segment

Our comprehensive portfolio of technologies helps life sciences researchers better understand diseases and develop treatments. In addition, we enable scientists to detect, monitor and manage contaminants and toxic chemicals that impact our environment and food supply. Our Discovery & Analytical Solutions segment serves the life sciences and applied markets.

Life Sciences:

Life Sciences consists of the life sciences research market and laboratory services market. In the life sciences research market, we provide a broad suite of solutions including reagents, informatics, contract research services, and detection and imaging technologies that enable scientists to work smarter, make research breakthroughs and transform those breakthroughs to real-world outcomes. These products, solutions and services support pharmaceutical, biotech, and contract research organizations, as well as academic institutions globally in discovering and developing better treatments and therapeutics to fight disease, faster and more efficiently. BioLegend's acquisition provides us with access to new markets as well, notably the flow cytometry and multiomic cell analysis markets.

We also provide services designed to help customers in the laboratory services market increase efficiencies and production time while reducing laboratory maintenance costs. Our OneSource® laboratory service business is aligned with customers' needs, enabling them to accelerate scientific progress and commercial opportunities.

Applied Markets:

The applied markets consist of environmental, food and industrial markets. For the environmental market, we develop and provide analytical technologies, solutions and services that enable our customers to understand and characterize the health and quality of our environment, including air, water and soil. Our solutions are used to detect and help reduce the impact commercial products and industrial processes have on our environment. For example, our solutions help ensure compliance with regulatory standards that protect the purity of the world's water supply by detecting harmful substances, including trace metals such as lead, and organic pollutants such as pesticides and benzene. We provide the tools needed to meet rigorous regulatory requirements for environmental testing, meet quality specifications and safety standards, and innovate for next generation analytical products.

We also offer a variety of solutions that help farmers and food producers provide a growing population with food that is safe, nutritious and appealing, and assist manufacturers with ensuring product consistency and maximizing production yield. Our solutions confirm food quality, including the level of moisture in grain or the level of fat in butter and nutritional elements, as well as detect the presence of potentially dangerous contaminants, such as veterinary drug residues in milk. Our workflows can also be used to identify the origin of food products such as olive oil, which helps prevent counterfeiting. Our methods and analyses are transferable throughout the supply chain to enable customers to keep pace with industry standards as well as governmental regulations and certifications.

We also provide analytical instrumentation for the industrial market which includes the chemical, semiconductor and electronics, energy, lubricant, petrochemical and polymer industries. Our technologies for this market are primarily used by customers focusing on quality assurance standards. They are also used to drive advancement or innovation of new products, with a recent focus on increasing the recyclability and biodegradability of materials and improving electric vehicle battery performance.

Principal Products:

Our principal products and services for Discovery & Analytical Solutions applications include the following:

Life Sciences Market:

- Radiometric detection solutions, including over 1,100 radiochemicals and instrumentation such as the Tri-Carb® and Quantulus™ GCT families of liquid scintillation analyzers, Wizard²® Gamma counters and MicroBeta²® plate based LSA, which are used for beta, gamma and luminescence counting in microplate and vial formats utilized in research, environmental and drug discovery applications.

- The Opera Phenix® Plus high-content screening system, which is used for sensitive and high-speed phenotypic drug screening of complex cellular models.
- The Operetta® CLS™ high-content analysis system, which enables scientists to reveal fine sub-cellular details from everyday assays as well as more complex studies, for example using live cells, 3D and stem cells.
- Reagents and solutions for microscopy and imaging applications. These include fluorophore-conjugated and enzyme-conjugated antibodies, as well as buffers and solutions such as our Ce3D™ collection of buffers for 3D tissue imaging.
- The MuviCyte™ live-cell imaging system, designed to operate inside a cell-culture incubator, enabling researchers to study cellular behaviors and pathways in living cells to gain a deeper understanding of functions, disease mechanisms and responses to treatments.
- The VICTOR Nivo® multimode plate reader benchtop system, which is designed for assay development and academic labs including those using HTRF® and AlphaLISA® technologies.
- The EnSight® multimode plate reader benchtop system, which offers well plate imaging alongside labeled detection technologies for target-based and phenotypic assays.
- The EnVision® multimode plate reader, which is designed for high-throughput screening laboratories, including those using HTRF®, AlphaScreen® and AlphaLISA® technologies.
- A wide range of homogeneous biochemical and cell-based reagents using HTRF®, LANCE® Ultra™, DELFIA®, AlphaLISA®, AlphaLISA ® SureFire® Ultra, AlphaScreen®, AlphaPlex® and luminescence assay technologies.
- A broad portfolio of recombinant GPCR and ion channel cell lines, including over 300 products and 120 ready-to-use frozen cell lines for a wide range of disease areas.
- ELISA MAX™ Standard Sets, ELISA MAX™ Deluxe Sets, LEGEND MAX™ ELISA Kits and RAPID MAX™ ELISA Kits, as well as complementary solutions and buffers for immunoassays to cover more than 200 targets for human, mouse, and rat samples, many of which are designed to assess the immune environment and its inflammatory state for vaccine, infectious disease and autoimmune disease research.
- LEGENDplex™ bead-based reagents, which, in contrast to single analyte assays such as ELISAs, can quantitate up to 14 targets, from one small sample volume in a flow cytometry assay.
- In vivo imaging technologies and reagents for preclinical research, comprised of the IVIS® Spectrum™ series for 2D and 3D optical imaging and optionally integrated low-dose CT imaging and the IVIS® Lumina™ series for benchtop 2D imaging, along with IVISbrite™ bioluminescent and IVISense™ fluorescent imaging agents, cell lines and dyes.
- GoInVivo™ as well as Ultra-LEAF™ and LEAF™ functional antibodies, which provide an affordable solution for researchers performing in vivo and ex vivo studies.
- The Quantum™ GX2 system, which enables low-dose in vivo CT imaging of multiple species and areas of anatomical interest across multiple disease areas by way of high resolution, tomographic imaging.
- Nexcelom BioScience automated cell counters, image cytometers, reagents and consumables for cell analysis used in life science research, drug discovery and drug development.
- Horizon Discovery offerings that enable critical elements of the drug development and therapeutic value chain, particularly in the area of precision medicine with a portfolio of cell engineering tools and services, featuring gene editing technologies such as CRISPR, and base editing and gene modulation technologies such as RNAi.
- Sirion Biotech consultancy services and technologies to design and manufacture viral vectors for cell and gene therapy research and preclinical development.
- BioLegend® best-in-class antibodies and reagents, which are used by life science researchers across biologics, cell and gene therapy, proteogenomics, and recombinant proteins.
- Fluorophore-conjugated antibodies, which are used in flow cytometers to characterize protein expression on the surface and in internal compartments of cells. The large collection of dyes and antibodies allows for an increasing number of conjugate options, facilitating the use of bigger and better flow cytometry panels. Notable products are Brilliant Violet™ and Spark™ dyes, among others.
- TotalSeq™ reagents, which are oligonucleotide-barcoded antibodies that enable protein detection by sequencing and combining traditional RNA or DNA sequencing experiments with high-parameter protein detection.
- Cell culture and biofunctional assay reagents, including bioactive recombinant proteins, as well as other specialized reagents such as Cell-Vive™ T-NK Xeno-Free Serum Substitute (GMP), and other GMP-produced recombinant proteins and reagents. These products serve several markets, notably cell and gene therapy applications.
- MojoSort™ and Lymphopure™ reagents that cover the main spectrum of cell separation technologies, which together with our fluorophore-antibody conjugates, can be used for FACS (Fluorescence-activated Cell Sorting).
- Flex-T™ reagents that utilize major histocompatibility complex tetramers to present peptides for the identification of antigen-specific T cells. Our Flex-T products can be used to screen the efficacy of antigen peptides for vaccine and drug trials, as well as characterizing the dominance of cancer-specific self-peptides, and more recently, SARS-CoV2 peptides for COVID-19 research.

- Antibodies and solutions for Western blotting. A large collection of validated antibodies, as well as supporting buffers and substrates, which provide a convenient set of tools to characterize protein size and relative expression levels in cell or tissue lysates.
- OneSource® laboratory services, a comprehensive portfolio of multivendor instrument management, QA/QC, lab relocation, scientific, laboratory IT and regulatory compliance services. OneSource® services programs are tailored to the specific needs and goals of individual customers and offer a series of informatics-based consulting, planning and management offerings to assist in laboratory productivity and the optimization of complex Information Technology platforms.
- OneSource® Dashboard software, a TIBCO® Spotfire® technology-driven interactive graphical platform, which provides visibility to a customer's global asset population, service event and downtime distribution, as well as key performance indicators to assist in asset operation.
- OneSource® Insights as a Service™ offerings, which leverages comprehensive OneSource® analytics and industry data to develop and deliver customer-need driven recommendations to optimize, integrate and accelerate lab operations.
- PerkinElmer Signals Medical Review™ software, which empowers medical monitors to detect safety signals faster and reduce overall time to submission by combining innovative medical review workflow with advanced analytics.
- PerkinElmer Signals Lead Discovery™ software, which enables researchers to quickly gain new insights into chemical and biomolecular research data, featuring guided search and analysis workflows and dynamic data visualizations for on-the-fly exploration.
- PerkinElmer Signals™ electronic notebook, a scientific research data management solution, which allows researchers to record research data and experiments in digital notebooks, drag and drop, store, organize, share, find and filter data easily.
- PerkinElmer Signals Translational™ data management, aggregation and analysis platform, which offers out-of-the-box support for the complete precision medicine workflow from data acquisition to biomarker discovery and validation.
- ChemDraw® 18 platform, a chemical structure drawing and visualization application for scientists and researchers.
- Lead Discovery™ Premium software, which allows scientists to import, filter by, analyze and interpret chemical structures and biosequences alongside other related data in a highly visual and interactive environment for faster insights and better decisions.
- OneSource® Asset Genius™ monitoring solution, part of the Asset Genius family, which offers a 360° view of laboratory instruments regardless of the manufacturer, correlating instrument usage, age and service data, allowing customers to visually pinpoint under-performing, ideally-performing and over-burdened assets, and to make informed decisions.

Applied Markets:

- The series of Clarus® gas chromatographs and gas chromatographs/mass spectrometers, and the family of TurboMatrix™ sample-handling equipment, which are used to identify and quantify compounds in the environmental, forensics, food and beverage, hydrocarbon processing/biofuels, materials testing, pharmaceutical and semiconductor industries.
- The LC 300™ ultra-high performance liquid chromatography (UHPLC) and LC 300 high performance liquid chromatography (HPLC) systems, which provide high throughput along with superior performance and sensitivity.
- The SimplicityChrom™ CDS software which offers liquid chromatography workflows and intuitive functions for full 21CFR 11 compliance for laboratories working in regulated environments.
- A comprehensive Liquid Chromatography (LC) Column portfolio of innovative and highly efficient HPLC/ UHPLC and supercritical fluid chromatography (SFC) chemistries.
- The NexSAR™ HPLC, which is a speciation analysis ready system engineered with a completely inert and metal-free fluid path, enabling laboratories to meet low chromatographic background requirements on the most challenging speciation applications in food, water or consumer products such as children's toys.
- The Flexar™ ultra-high performance liquid chromatography (UHPLC) and Flexar advanced liquid chromatography systems, which provide high throughput and resolution chromatographic separations.
- The QSight® Triple Quad LC/MS/MS, a flow-based mass spectrometry system that provides high sensitivity and enables high levels of efficiency and productivity to meet both standard and regulatory requirements for food, cannabis and environmental testing laboratories.
- The Torion® T-9 portable GC/MS, a fast person-portable GC/MS system, enabling rapid detection and actionable results to potentially hazardous and emergency environmental conditions.
- Atomic spectroscopy families of instruments, including the families of PinAAcle® atomic absorption spectrometers, Avio® Max inductively coupled plasma ("ICP") optical emission spectrometers and NexION® ICP mass spectrometers, all of which are used in the environmental, food, pharmaceutical, and chemical industries, among others, to determine the elemental content of a sample.

- The LPC 500™ liquid particle counter featuring single particle optical sizing technology. Coupled with the Avio® 550 Max ICP-OES oils system, particle counting and sizing as well as wear metals analysis of in-service oils and lubricants are performed in one run with results delivered in less than a minute.
- Our infrared spectroscopy (IR) family of instruments, the Spectrum Two™ IR & NIR spectrometers, which are compact and portable and used for advanced infrared analysis for unknown substance identification, material qualification or concentration determination in fuel and lubricant analysis, polymer analysis and pharmaceutical and environmental applications.
- The Polymer ID analyzer, which provides accurate verification of identity, quality, and composition of polymers and their blends used in industries such as food packaging, construction and automotive.
- The series of LAMBDA® UV/Vis spectrophotometers that provide sampling flexibility to enable measurement of a wide range of sample types, including liquids, powders and solid materials, both in regulated industries as well as QC/QA and research applications.
- The FL 6500™ and FL 8500™ fluorescence spectrophotometers, which address the challenges of bioscience, industrial, chemical, environmental, pharmaceutical, agricultural and academic application.
- The 2400 Series II CHNS/O elemental analyzer, one of the leading organic elemental analyzers, which is ideal for the rapid determination of carbon, hydrogen, nitrogen, sulfur and oxygen content in organic and other types of materials.
- Our thermal analysis family, which includes our series of Differential Scanning Calorimetry (DSC) instruments that offer exclusive HyperDSC™ capability for unparalleled sensitivity and new insights into material processes, our Thermogravimetric (TGA) and Simultaneous Thermal Analysis (STA) instruments that can be coupled with Fourier Transform Infrared (FT-IR), Mass Spectrometry (MS), or Gas Chromatography/Mass Spectrometry (GC/MS) technologies to provide a complete and advanced line of Evolved Gas Analysis (EGA) platforms for greater analysis power and knowledge with materials characterization in polymers, pharmaceuticals, chemicals, petroleum, rubber, food and other areas.
- Perten® Falling Number®, which is the world standard method for measuring sprout damage. This is an important factor affecting the price of wheat and, ultimately, bread, baked goods, and pasta/noodle quality.
- RVA™ performance analyzer, which provides a screening tool for both producers and users of food ingredients.
- The Bioo Scientific® test kits for detection of toxins, veterinary drug residues and contaminants, which enable rapid and easy testing at different steps in the food value chain.
- The PerkinElmer FT 9700™ compact, high-performance and full-wavelength-range Fourier Transform Near Infrared (FT-NIR) spectrometer, which helps food and feed laboratories perform quick analyses for quality assurance of food and feed materials and reduces variations in production.
- The DA 7250 diode-array based NIR lab and at-line system, which simultaneously measures multiple constituents (moisture, protein, fat fiber, etc.) in 10 seconds.
- The IM 9500 Whole Grain NIR, which measures moisture, protein, oil, and more in less than 40 seconds.
- The AM 5200 grain moisture meter, which is based on the latest moisture meter technology, including the use of the Unified Grain Moisture Algorithm (UGMA) and 149MHz.
- The QSight® SP50 online solid phase extraction (SPE) system, which facilitates sample clean-up, enrichment and concentration, obviating the need for elaborate and time-consuming sample preparation procedures.
- MaxSignal HTS™ mycotoxin kits featuring automated and easy-to-use testing workflows for the six most commonly tested mycotoxins.
- PerkinElmer Solus One™ Listeria monocytogenes ELISA Assay. This new offering is designed to help high throughput food processors and contract labs focus on L. mono testing for food and environmental surface samples.
- DA 7350™ and DA 7440™ in-line and on-line NIR instruments – combined with Process Plus™ cloud-based software – provide continuous quality control of food and food ingredient manufacturing processes.
- Perten® Glutomatic® 2000 system for gluten quantity and quality testing of wheat, durum, semolina and flour.
- LactoScope™ FT-A instrument, which delivers quick and accurate full spectrum component testing and adulterant screening for liquid dairy products such as whey, raw and skim milk, shelf stable milk and cream with under 40% fat content.
- MaxSignalHTS™ Nitrofurans and Chloramphenicol ELISA kits, which will help food safety, quality and aquaculture labs simultaneously and accurately perform same-day testing for targeted antibiotic residues.

New Products:

New products introduced or acquired for Discovery & Analytical Solutions applications in fiscal year 2021 include the following:

Life Sciences Market:

- PhenoVue™ cellular imaging reagents, including cell painting kits, fluorescent probes and dyes and fluorescent secondary antibodies, which are part of an expanded suite of high-content imaging consumables that includes PhenoPlate™ (formerly CellCarrier Ultra™) cellular imaging microplates and GrowDex® hydrogels.
- A range of new AlphaLISA® and HTRF® reagents and assay kits serving key research and therapeutic areas, including GPCRs, targeted protein degradation, inflammation, oncology and neuroscience.
- The Signals Image Artist™ next-generation image analysis and management platform for drug discovery research, to help scientists process and analyze their high-content screening (HCS) and cellular imaging data in a matter of hours vs. days or weeks, so they can make more informed decisions faster.
- Horizon CHOSOURCE™ platform expanded to include CHO-K1 ADCC+ expression cell line for development of therapeutic antibodies in oncology, infectious disease and autoimmune conditions.
- A catalog of more than 20,000 SKUs from the recent acquisition of BioLegend, incorporating antibodies as well as a large collection of antibody conjugates and modifications. Other products include recombinant proteins, immunoassays and other supportive reagents and solutions for cell and molecular analysis.
- The T-SPOT® *Discovery* SARS-CoV-2 research use only assay to investigate cell-mediated immunity related to COVID-19.
- AuroFlow® AQ Mycotoxin platform that includes strip test versions for total Aflatoxin, Deoxynivalenol (DON), Fumonisin, Ochratoxin A, Zearalenone and T-2/HT-2.

Applied Markets:

- MappIR™ accessory for Spectrum™ 3 FT-IR, which helps ensure quality of incoming raw materials and final product quality for better outcomes in semiconductor wafer manufacturing.
- The Tablet Analyzer™ and portable Silica Analyzer™ platform, which are dedicated analyzers launched to address customer needs for quick and accurate characterization of pharmaceutical tablet testing and respirable crystalline silica in mining environments, respectively.
- PureView™ Certified and PureView MS Certified vials, manufactured from Type 1 borosilicate glass which meets all USP, JP and EP requirements. The low-expansion, coefficient glass exhibits excellent thermal conductivity and provides an inert surface with a low free ion content, giving accurate and repeatable results every time.

Brand Names:

Our Discovery & Analytical Solutions segment offers additional products under various brand names:

Life Sciences Market:

Accell™, AdenoBOOST™, AlphaLISA®, AlphaPlex™, AlphaScreen®, Alpha™ SureFire®, Brilliant Violet™, Ce3D™, CellCarrier®, Cellaca™, Celigo™, Cellometer™, cell::explorer™, Cell-Vive™, Chalice™, Chem3D®, ChemDraw®, ChemOffice®, CHOSOURCE™, Dharmacon™, DharmaFECT™, Edit-R™, ELISA MAX™, EnSight®, EnVision®, Flex-T™, FMT®, FolateRSense™, GoInVivo™, HTRF®, IVIS®, IVISbrite™, IVISense™, LANCE®, LANCE ® Ultra ™, LEAF™, LEGEND MAX™, LEGENDplex™, LentiBOOST™, Lincode™, Living Image®, Lumina™, Lymphopure™, MicroBeta2®, [Mini ELISA Plate Reader™,] miRIDIAN™, MojoSort™, MuviCyte™, OneSource®, ON-TARGET™, ON-TARGETplus™, Opera Phenix® Plus, Operetta® CLS™, PerkinElmer Signals for Translational™, PhenoPlate™, PhenoVue™, PIN-POINT™, Quantulus™ GCT, RAPID MAX™, RediJect™, RNAiONE™, Signals Image Artist™, SMARTpools™, SMARTvector™, Spark™, Spectrum™, Tri-Carb®, T-SPOT®, Ultra-LEAF™, ViaStain™, VICTOR Nivo™ and Wizard2®.

Applied Markets:

Aquamatic™, Avio®, Clarity™, Clarus®, DairyGuard™, DoughLab™, Falling Number®, FL 6500™, FL 8500™, Flexar™, Frontier™, Glutomatic®, Honigs Regression™, HyperDSC®, Inframatic™, LAMBDA®, LPC 500™, NexION®, NexSAR™, OilExpress™, OilPrep™, Optima®, Perten®, Perten Instruments®, PinAAcle®, PureView™, QSight®, SimplicityChrom™, Spectrum™, Spectrum Two™, Spotlight™, Supra-clean®, Supra-d™, Supra-poly®, Syngistix™, Torion®, TruQ™, TurboMatrix™ and Ultraspray®.

Diagnostics Segment

We offer instruments, reagents, assay platforms, and software to hospitals, medical labs, clinicians and medical research professionals to help improve the health of families. Our Diagnostics segment is especially focused on reproductive health, immunodiagnostics, emerging market diagnostics and applied genomics.

We provide early detection for genetic disorders from pregnancy to early childhood, and infectious disease testing for the diagnostics market. Our screening products are designed to provide early and accurate insights into the health of expectant mothers during pregnancy and into the health of their babies. Diagnostic labs use our instruments, reagents and software for testing and screening genetic abnormalities and certain disorders and diseases, including Down syndrome, hypothyroidism, muscular dystrophy, infertility and various metabolic conditions. We also develop technologies that enable and support genomic workflows using PCR and next-generation DNA sequencing for applications in oncology, immunodiagnostics and drug discovery.

With the acquisition of BioLegend, we added a collection of Analyte Specific Reagents (ASR) used in flow cytometry to develop diagnostic assays. We also provide a limited set of Immunohistochemistry in vitro diagnostic (IVD) products used for diagnostics in pathology labs, contract research organizations and other qualified institutions. A selection of our flow cytometry conjugates are registered in China as Class I diagnostic products.

We also developed a number of products and services in response to the COVID-19 pandemic, with a special emphasis on supporting public health authorities both in the United States and abroad, including through the operation of COVID-19 testing facilities. Further information is provided below under "New Products".

Principal Products:

Our principal products and services for Diagnostics applications include the following:

- The DELFIA® Xpress screening platform, a complete solution for prenatal and maternal health screening, which includes a fast continuous loading system. It is supported by kits for first, second and third trimester analyses for prenatal screening and clinically validated LifeCycle™ software.
- The NeoBase™ non-derivatized MS/MS AAAC kits, which are used to support detection of metabolic disorders in newborns through tandem mass spectrometry. The kits analyze newborn dry blood spot samples for measurement of amino acids and other metabolic analytes for specific diseases.
- The GSP® Neonatal hTSH, T4 17á-OHP, GALT IRT, BTD, PKU, Total Galactose, CK-MM and G6PD kits, used for screening congenital neonatal conditions from a drop of blood.
- The Specimen Gate® informatics data management solution, designed specifically for newborn screening laboratories.
- ViaCord® umbilical cord blood banking services for the banking of stem cells harvested from umbilical cord blood and cord tissue, for potential therapeutic application in transplant and regenerative medicine.
- An expanded portfolio of molecular-based infectious disease screening technologies for blood bank and clinical laboratory settings in China. The tools include a qualitative 3-in-1 assay for the detection of hepatitis B, hepatitis C and HIV, as well as assays for other communicable diseases.
- The EnLite™ Neonatal TREC™ system, a screening test for Severe Combined Immunodeficiency (SCID), consisting of EnLite™ Neonatal TREC™ reagent kits, the Victor EnLite™ instrument and EnLite™ workstation software.
- NeoLSD™ MSMS kit, the first commercial IVD kit for screening of Pompe, MPS-I, Fabry, Gaucher, Niemann-Pick A/B and Krabbe disorders from a single dried blood spot sample.
- QSight® Triple Quad MSMS instrument, which is used for newborn screening.
- TRF-based Anti HBs/HCV/TP kits for infectious disease testing.
- Chitas® instrument and HBV/HCV/HIV 3-in-1 PCR reagents for blood screening, and Hi Sensitivity HBV DNA and HCV RNA assays for clinical infectious disease testing.
- The chemagic™ Prime™ instrument, a fully automated, LIMS-compatible solution for primary sample transfer, DNA and RNA isolation, optional normalization and the setup of PCR and NGS applications.
- Immune fluorescence testing (IFT), enzyme-linked immunosorbent assay (ELISA), chemiluminescence-based immunotesting, immunoblots, molecular microarrays, PCR, liquid handlers and software solutions.
- Autoimmune testing covering rheumatology, hepatology, gastroenterology, endocrinology, neurology, nephrology, dermatology and infertility.
- Infectious disease testing covering bacteria, viruses and parasites.
- IFT, ELISA and EUROLINE™ assays for veterinary medical diagnostics.
- Automated liquid handling platforms (JANUS®, Sciclone® and Zephyr®) that offer a choice of robotic solutions in genomics, biotherapeutics, high throughput screening and high content analysis to assist life science research from bench to clinic.

- JANUS® BioTx™ and PreNAT II™ workstations for automated small-scale purification, offering column, tip and plate-based chromatography on a single platform.
- The LabChip GXII® Touch™ platform, which provides a means of characterizing multiple protein product attributes for research labs through QC.
- The explorer™ automated workstation, which allows integration of multiple laboratory instrumentation using a centralized robotic interface, allowing high throughput and turnkey-application focused solutions.
- Allergy testing covering allergen-specific immunoglobin e (IgE), measuring the level of different IgE antibodies in blood using ELISA and EUROLINE™ assays.
- Vanadis® NIPT, a breakthrough cfDNA technology for use in genetic and biochemistry laboratories for screening common trisomies in the pregnant population as a leading NIPT solution.
- PG-Seq™ Rapid Non-Invasive Preimplantation Genetic Testing kit, an alternative to IVF embryo biopsies.
- PerkinElmer Genomics is a global laboratory network offering services for testing in cytogenetics, biochemical genetics (prenatal and postnatal), molecular genetics and immunodiagnostics. The laboratory network includes testing laboratories in the United States, Sweden, India, Malaysia and China.
- The EONIS™ assay, a CE marked system utilizing real-time PCR technology, which allows for simultaneous screening of SMA, SCID and XLA in newborns from a single DBS punch.
- EUROIMMUN SARS-CoV-2 Antigen ELISA for specific determination of the SARS-CoV-2 protein.
- EURORealTime SARS-CoV-2/Influenza A/B real-time PCR test for direct detection of SARS-CoV-2, influenza virus type A and influenza virus type B.
- Anti-SARS-CoV-2 QuantiVac™ ELISA (IgG) to quantify IgG antibodies against the SARS-CoV-2 S1 antigen liquid chromatography (UHPLC) capabilities with intuitive instrument control and data analysis.
- PKamp™ Respiratory SARS-CoV-2 RT-PCR assay panel designed to conserve resources by testing a single nasopharyngeal, oropharyngeal or nasal swab sample collected from an individual suspected of respiratory viral infection consistent with COVID-19, the flu and RSV.
- explorer™ workstations for SARS-CoV-2 testing capable of preparing and running up to 10,000 COVID-19 tests per day. These modular and scalable workstations enable laboratories to ramp up SARS-CoV-2 testing capacity quickly to generate results.
- The DELFIA® Xpress sFlt-1 kit, which enables short term prediction of pre-eclampsia and aids in diagnosis in the second and third trimesters of pregnancy together with the previously launched DELFIA® Xpress PlGF 1-2-3™ assay.
- Laboratory facilities for COVID-19 testing developed with public health authorities in the State of California and the United Kingdom.

New Products:

New products or services introduced or acquired for Diagnostics applications in fiscal year 2021 include the following:

- Prenatal testing utilizing PerkinElmer Genomics Next Generation Sequencing products.
- PerkinElmer Genomics Whole Genome Sequencing products, including sequencing for Spinal Muscular Atrophy and Repeat disorders.
- PerkinElmer Genomics Digital Genome sequencing test for Facioscapularhumeral dystrophy (FSHD).
- Oxford Immunotec™ T-SPOT® Technology platform, a modified ELISPOT used to detect a T cell immune response to infection. Tests available using the platform include:
    - The T-SPOT®.*TB* test, an FDA approved and CE marked test to aid the diagnosis of Tuberculosis infection.
    - The T-SPOT®.*COVID* test, a CE marked test to detect a T cell immune response to SARS-CoV-2 infection and vaccination.
    - The T-SPOT®.*CMV* test, a CE marked test to assess anti-CMV T cell mediated immunity.

Brand Names:

Our Diagnostics segment offers additional products under various brand names, including AutoDELFIA®, BACS-on-Beads®, BIOCHIPs, Bioo Scientific®, BoBs®, chemagic™, Chitas®, Datalytix™, DELFIA®, DELFIA® Xpress, DOPlify®, EONIS™, EUROArray™, EUROIMMUN®, EUROLabWorkstation™, EUROline™, EUROPattern™, Evolution™, Evoya®, explorer™, FragilEase®, Genoglyphix®, GSP®, Haoyuan™, iLab™, JANUS®, LabChip®, LifeCycle™, LimsLink™, MultiPROBE®, NEXTFLEX®, NextPrep™, Pannoramic™, PG-Seq™, PG-Find™, PKamp™, PreNAT®, Protein Clear™, ProteinEXact™, QSight®, QuantiVac™, Sciclone®, SimplicityChrom™, Specimen Gate®, Superflex™, Symbio™, T-SPOT®, Twister®, Vanadis®, VariSpec™, ViaCord® and Zephyr®.

Marketing

All of our businesses market their products and services primarily through their own specialized sales forces. As of January 2, 2022, we employed approximately 6,500 sales and service representatives operating in approximately 40 countries and marketing products and services in more than 190 countries. In geographic regions where we do not have a sales and service presence, we utilize distributors to sell our products.

Raw Materials, Key Components and Supplies

Each of our businesses uses a wide variety of raw materials, key components and supplies that are generally available from alternate sources of supply and in adequate quantities from domestic and foreign sources. We generally have multi-year contracts, with no minimum purchase requirements, with our suppliers. For certain critical raw materials, key components and supplies required for the production of some of our principal products, we have qualified only a limited or a single source of supply. We periodically purchase quantities of some of these critical raw materials in excess of current requirements, in anticipation of future manufacturing needs. With sufficient lead times, we believe we would be able to qualify alternative suppliers for each of these raw materials and key components. See the applicable risk factor in "Item 1A. Risk Factors" for an additional description of this risk.

Intellectual Property

We own numerous United States and foreign patents and have patent applications pending in the United States and abroad. We also license intellectual property rights to and from third parties, some of which bear royalties and are terminable in specified circumstances. In addition to our patent portfolio, we possess a wide array of unpatented proprietary technology and know-how. We also own numerous United States and foreign trademarks and trade names for a variety of our product names, and have applications for the registration of trademarks and trade names pending in the United States and abroad. We believe that patents and other proprietary rights are important to the development of both of our reporting segments, but we also rely upon trade secrets, know-how, continuing technological innovations and licensing opportunities to develop and maintain the competitive position of both of our reporting segments. We do not believe that the loss of any one patent or other proprietary right would have a material adverse effect on our overall business or on any of our reporting segments.

In some cases, we may participate in litigation or other proceedings to defend against or assert claims of infringement, to enforce our patents or our licensors' patents, to protect our trade secrets, know-how or other intellectual property rights, or to determine the scope and validity of our or third parties' intellectual property rights. Litigation of this type could result in substantial cost to us and diversion of our resources. An adverse outcome in any litigation or proceeding could subject us to significant liabilities or expenses, require us to cease using disputed intellectual property or cease the sale of a product, or require us to license the disputed intellectual property from third parties.

Competition

Due to the range and diversity of our products and services, we face many different types of competition and competitors. Our competitors range from foreign and domestic organizations, which produce a comprehensive array of goods and services and that may have greater financial and other resources than we do, to more narrowly focused firms producing a limited number of goods or services for specialized market segments.

We compete on the basis of service level, price, technological innovation, operational efficiency, product differentiation, product availability, quality and reliability. Competitors range from multinational organizations with a wide range of products to specialized firms that in some cases have well-established market positions. We expect the proportion of large competitors to increase through the continued consolidation of competitors.

Regulatory Affairs

Our operations are subject to regulation by different state and federal government agencies in the United States and other countries, as well as to the standards established by international standards bodies. Some of our products are subject to regulation by the United States Food and Drug Administration and similar foreign agencies. These regulations govern a wide variety of our product activities, and if we fail to comply with those regulations or standards, we may face, among other things, warning letters; adverse publicity; investigations or notices of non-compliance, fines, injunctions, and civil penalties; import or export restrictions; partial suspensions or total shutdown of production facilities or the imposition of operating restrictions;

increased difficulty in obtaining required FDA clearances or approvals or foreign equivalents; seizures or recalls of our products or those of our customers; or the inability to sell our products.

We have agreements relating to the sale of our products and services to government entities and, as a result, we are subject to various statutes and regulations that apply to companies doing business with the government. We are also subject to investigation for compliance with the regulations governing government contracts. A failure to comply with these regulations could result in suspension of these contracts, as well as other penalties.

We are also subject to a variety of laws, regulations and standards that govern, among other things, the importation and exportation of products, and our business practices in the United States and abroad such as anti-bribery, anti-corruption and competition laws. In addition, changes in governmental regulations may reduce demand for our products or increase our expenses. The healthcare industry, including the genetic screening market, is subject to extensive and frequently changing international and United States federal, state and local laws and regulations. This requires that we devote substantial resources to maintaining our compliance with those laws, regulations and standards.

If we fail to comply with applicable laws and regulations, we could suffer civil and criminal damages, fines and penalties, exclusion from participation in governmental healthcare programs, and the loss of various licenses, certificates and authorizations necessary to operate our business, as well as incur liabilities from third-party claims, all of which could have a significant adverse effect on our business.

Environmental Matters

Our operations are subject to various foreign, federal, state and local environmental and safety laws and regulations. These requirements include the handling, transportation, manufacture and disposal of toxic or hazardous substances, the remediation of contaminated soil and groundwater, the regulation of radioactive materials, and the health and safety of our employees.

We may have liability under the Comprehensive Environmental Response Compensation and Liability Act and comparable state statutes that impose liability for investigation and remediation of contamination without regard to fault, in connection with materials that we or our former businesses sent to various third-party sites. We have incurred, and expect to incur, costs pursuant to these statutes.

We are conducting a number of environmental investigations and remedial actions at our current and former locations and, along with other companies, have been named a potentially responsible party ("PRP") for certain waste disposal sites. We accrue for environmental issues in the accounting period that our responsibility is established and when the cost can be reasonably estimated. We have accrued $11.9 million and $12.9 million as of January 2, 2022 and January 3, 2021, respectively, which represents our management's estimate of the cost of the remediation of known environmental matters, and does not include any potential liability for related personal injury or property damage claims. Our environmental accrual is not discounted and does not reflect the recovery of any material amounts through insurance or indemnification arrangements. The cost estimates are subject to a number of variables, including the stage of the environmental investigations, the magnitude of the possible contamination, the nature of the potential remedies, possible joint and several liability, the time period over which remediation may occur, and the possible effects of changing laws and regulations. For sites where we have been named a PRP, our management does not currently anticipate any additional liability to result from the inability of other significant named parties to contribute. We expect that the majority of such accrued amounts could be paid out over a period of up to ten years. As assessment and remediation activities progress at each individual site, these liabilities are reviewed and adjusted to reflect additional information as it becomes available. There have been no environmental problems to date that have had, or are expected to have, a material adverse effect on our consolidated financial statements. While it is possible that a loss exceeding the amounts recorded in the consolidated financial statements may be incurred, the potential exposure is not expected to be materially different from those amounts recorded.

We may become subject to new or unforeseen environmental costs or liabilities. Compliance with new or more stringent laws or regulations, stricter interpretations of existing laws, or the discovery of new contamination could cause us to incur additional costs.

Human Capital Management

As of January 2, 2022, we employed approximately 16,700 employees on a worldwide basis. Roughly 75% of our workforce is based outside of the United States. Employees at several of our subsidiaries outside the United States belong to labor unions and/or workers' councils in those jurisdictions. During fiscal year 2021, our voluntary turnover rate was roughly 10%. We believe that management of our human capital resources is vital to the continued growth and success of the Company,

and we endeavor to create an environment that encourages productivity, rewards performance and values diversity. There are several ways in which we attempt to attract, develop and retain highly qualified employees, as set forth below.

Our human capital objectives include, as applicable, identifying, recruiting, developing, retaining, incentivizing, and integrating our existing and new employees. We strive to meet this objective by offering competitive compensation and benefits, in a diverse, inclusive and safe workplace, with opportunities for our employees to grow and develop in their careers. We hold our employees to high performance standards and our compensation plans are designed to deliver competitive base pay and attractive incentive opportunities. Our benefits programs are specifically tailored to the various countries in which we operate and maintain a significant workforce. We benchmark for market practices and adjust our compensation and benefits programs to ensure they remain both equitable and competitive.

Diversity and Inclusion

We believe in an inclusive workforce, where employees from a number of cultures and countries are engaged and encouraged to leverage their collective talents. We have employees in more than 40 countries around the world. As of the date of filing of this annual report on Form 10-K, women comprised roughly 30% of our leadership positions on a global basis, which we define as director level and above. We provided further information regarding our diversity demographics in our Corporate Social Responsibility (CSR) Report and elsewhere on our website at www.perkinelmer.com, including from our consolidated EEO-1 report. An EEO-1 report is filed with the United States Equal Employment Opportunity Commission and describes the racial, ethnic and gender composition of our U.S.-based workforce. Information on our website, including the CSR Report and the consolidated EEO-1 report, shall not be deemed incorporated by reference into this annual report.

We understand that our ability to operate in a multicultural world is critical to our long-term value creation. By maintaining a culture of diversity and inclusion, we believe we can innovate more effectively. To that end, we seek to promote diverse perspectives throughout our organization and are an equal opportunity employer committed to making employment decisions without regard to race, religion, national or ethnic origin, sex, sexual orientation, gender identity or expression, age, disability, protected veteran status or other characteristics protected by law.

Our commitment to diversity is evidenced by the establishment in 2020 of our internal Inclusion and Diversity Committee, which is comprised of a wide cross-section of leaders from all regions and backgrounds. The Committee focuses on driving increased diversity within our workforce, as well as creating a safe and engaging platform for dialogue on these issues for all our employees. Our commitment to creating a diverse and inclusive work environment is further validated by our employees, as reflected in the results of our recent employee engagement survey, where we received high scores in the areas of Diversity & Inclusion, Inclusiveness, and Non-Discrimination. Among other comments, employees shared that they are proud of the emphasis PerkinElmer places on diversity and inclusion, and on making PerkinElmer a place where everyone is valued and respected.

Training and Development

We are committed to the continued development and training of our employees. We seek to provide our employees with meaningful learning opportunities to help grow their capabilities and careers. We provide learning through a variety of channels and formats, including formal (classroom-based, blended learning solutions, digital learning) and informal, on-the-job learning. We are also dedicated to our employees' professional development, with a pivotal component of our annual performance review and goal-setting process focused on providing employees with constructive and actionable feedback, as well as management support and engagement in the creation and completion of development goals. Our training opportunities are designed to promote learning across all levels of our organization. We seek to provide opportunities for our employees to grow their careers and regularly fill open vacancies with internal candidates. In addition, management periodically assesses succession planning for certain key positions and reviews our workforce to identify high potential employees for future growth and development. We also provide formal and informal training opportunities for our employees covering a variety of professional, technical and leadership topics.

Health and Safety

Our success depends on the well-being of our employees, and one of our top priorities is to protect the health and safety of our employees. We maintain a culture focused on safety and strive to identify, eliminate, and control risk in the workplace to prevent injury and illness. Our employees have access to a global safety management system and are encouraged to report incidents, near misses, or other observations in the system. The system has been widely adopted in our manufacturing locations across the globe, and management uses the information generated by it to set safety-related policies and establish goals for future performance. Further, we provide our employees with a comprehensive benefits package that includes health insurance and other resources that support their physical and mental well-being. In response to the COVID-19 pandemic, we have taken, and we continue to take, proactive, aggressive actions to protect the health and safety of our employees, customers, partners,

and suppliers. We enacted rigorous safety measures, including social distancing protocols, encouraging employees who do not need to be physically present on the manufacturing floor or in a lab to perform their work from home, suspending non-essential travel, implementing temperature checks and other access controls at the entrances to our facilities, extensively and frequently disinfecting our workspaces, and providing appropriate personal protective equipment to employees who are physically present at our facilities. We expect to continue to implement these measures until the COVID-19 pandemic is adequately contained, and we may take further actions as government authorities require or recommend, or as we determine to be in the best interests of our employees, customers, partners, and suppliers.

Community

At PerkinElmer, we have long held the view that responsible global citizenship along with good governance principles and ethical business practices, are essential tenets for sustainability and success. We encourage our employees to support the communities in which they live and where we operate, and to assist in that effort, we fund a long-term charitable matching program for our employees. In addition, we have established a group comprised of management and subject matter experts at our company, to focus on developing and delivering on measurable advancements in the areas of reducing waste, reducing carbon emissions, and improving employee engagement and diversity.

Item 1A. *Risk Factors*

The following important factors affect our business and operations generally or affect multiple segments of our business and operations:

Risks Related to our Business Operations and Industry

If the markets into which we sell our products decline or do not grow as anticipated due to a decline in general economic conditions, or there are uncertainties surrounding the approval of government or industrial funding proposals, or there are unfavorable changes in government regulations, we may see an adverse effect on the results of our business operations.

Our customers include pharmaceutical and biotechnology companies, laboratories, academic and research institutions, public health authorities, private healthcare organizations, doctors and government agencies. Our quarterly revenue and results of operations are highly dependent on the volume and timing of orders received during the quarter. In addition, our revenues and earnings forecasts for future quarters are often based on the expected trends in our markets. However, the markets we serve do not always experience the trends that we may expect. Negative fluctuations in our customers' markets, the inability of our customers to secure credit or funding, restrictions in capital expenditures, general economic conditions, cuts in government funding or unfavorable changes in government regulations would likely result in a reduction in demand for our products and services. In addition, government funding is subject to economic conditions and the political process, which is inherently fluid and unpredictable. Our revenues may be adversely affected if our customers delay or reduce purchases as a result of uncertainties surrounding the approval of government or industrial funding proposals. Such declines could harm our consolidated financial position, results of operations, cash flows and trading price of our common stock, and could limit our ability to sustain profitability.

The pandemic caused by coronavirus disease 2019 ("COVID-19") is having, and may continue to have, a negative effect on the demand for certain of our products and our global operations including our manufacturing capabilities, logistics and supply chain that may materially and adversely impact our business, financial conditions, results of operations and cash flows.

We face risks related to public health crises and pandemics, including the COVID-19 pandemic. The global impact of COVID-19 has resulted in an adverse impact on our operations, supply chains and distribution systems, as significant global mitigation measures, including government-directed quarantines, social distancing and shelter-in-place mandates, travel restrictions and/or bans, have been implemented, and in some areas relaxed, and then implemented again. Continued uncertainty with respect to the severity and duration of the COVID-19 pandemic has contributed to the volatility of financial markets. The COVID-19 pandemic has caused extended global economic disruption, and a global recession is possible.

We have experienced significant reductions in demand for certain of our products due to the COVID-19 pandemic and although the severity and duration of the COVID-19 pandemic cannot be reasonably estimated at this time, additional impacts that we may experience include, but are not limited to: fluctuations in our stock price due to market volatility; further decreases in demand for certain of our products; reduced profitability; large-scale supply chain disruptions impeding our ability to ship and/or receive product; potential interruptions of, or limitations on manufacturing operations imposed by local, state or federal governments; shortages of key raw materials or components; workforce absenteeism and distraction; labor shortages including those resulting from unwillingness to comply with vaccination or other requirements; customer credit concerns; cybersecurity

risks and data accessibility disruptions due to remote working arrangements; reduced sources of liquidity; increased borrowing costs; fluctuations in foreign currency markets; potential impairment in the carrying value of goodwill; other asset impairment charges; increased obligations related to our pension and other postretirement benefit plans; and deferred tax valuation allowances.

The rapid and continually evolving development of the COVID-19 pandemic, and the extent to which mitigation measures will be effective, preclude any prediction as to its ultimate impact. However, we currently anticipate that business disruptions and market volatility resulting from the COVID-19 pandemic will continue to have a material adverse impact on the growth rate of certain of our businesses, and may also have a material adverse impact on our overall financial condition, results of operations and cash flows.

Our Diagnostics segment has experienced an increase in revenue resulting from increased demand for our immunodiagnostics and applied genomics COVID-19 product offerings as well as from the COVID-19 testing laboratory facilities we have developed with the State of California and the United Kingdom. We expect demand for these products and services to decline during 2022, with revenue and valuation of our inventory largely contingent upon consumer demand for COVID-19 testing as well as our ability to develop and produce COVID-19 products and successfully staff and manage the laboratories.

Our growth is subject to global economic and political conditions, and operational disruptions at our facilities.

Our business is affected by global economic and political conditions as well as the state of the financial markets, particularly as the United States and other countries balance concerns around debt, inflation, growth and budget allocations in their policy initiatives. There can be no assurance that global economic conditions and financial markets will not worsen and that we will not experience any adverse effects that may be material to our consolidated cash flows, results of operations, financial position or our ability to access capital, such as the adverse effects resulting from a prolonged shutdown in government operations both in the United States and internationally. Our business is also affected by local economic environments, including inflation, recession, financial liquidity and currency volatility or devaluation. Political changes, including war or other conflicts, some of which may be disruptive, could interfere with our supply chain, our customers and all of our activities in a particular location.

While we take precautions to prevent production or service interruptions at our global facilities, a major earthquake, fire, flood, power loss or other catastrophic event that results in the destruction or delay of any of our critical business operations could result in our incurring significant liability to customers or other third parties, cause significant reputational damage or have a material adverse effect on our business, operating results or financial condition.

Certain of these risks can be hedged to a limited degree using financial instruments, or other measures, and some of these risks are insurable, but any such mitigation efforts are costly and may not always be fully successful. Our ability to engage in such mitigation efforts has decreased or become even more costly as a result of recent market developments.

If we do not introduce new products in a timely manner, we may lose market share and be unable to achieve revenue growth targets.

We sell many of our products in industries characterized by rapid technological change, frequent new product and service introductions, and evolving customer needs and industry standards. Many of the businesses competing with us in these industries have significant financial and other resources to invest in new technologies, substantial intellectual property portfolios, substantial experience in new product development, regulatory expertise, manufacturing capabilities, and established distribution channels to deliver products to customers. Our products could become technologically obsolete over time, or we may invest in technology that does not lead to revenue growth or continue to sell products for which the demand from our customers is declining, in which case we may lose market share or not achieve our revenue growth targets. The success of our new product offerings will depend upon several factors, including our ability to:

- accurately anticipate customer needs,
- innovate and develop new reliable technologies and applications,
- receive regulatory approvals in a timely manner,
- successfully commercialize new technologies in a timely manner,
- price our products competitively, and manufacture and deliver our products in sufficient volumes and on time, and
- differentiate our offerings from our competitors' offerings.

Many of our products are used by our customers to develop, test and manufacture their products. We must anticipate industry trends and consistently develop new products to meet our customers' expectations. In developing new products, we may be required to make significant investments before we can determine the commercial viability of the new product. If we fail to accurately foresee our customers' needs and future activities, we may invest heavily in research and development of products that do not lead to significant revenue. We may also suffer a loss in market share and potential revenue if we are unable to commercialize our technology in a timely and efficient manner.

In addition, some of our licensed technology is subject to contractual restrictions, which may limit our ability to develop or commercialize products for some applications.

We may not be able to successfully execute acquisitions or divestitures, license technologies, integrate acquired businesses or licensed technologies into our existing businesses, or make acquired businesses or licensed technologies profitable.

We have in the past supplemented, and may in the future supplement, our internal growth by acquiring businesses and licensing technologies that complement or augment our existing product lines, such as our recent acquisition of BioLegend, Inc. However, we may be unable to identify or complete promising acquisitions or license transactions for many reasons, such as:

- competition among buyers and licensees,
- the high valuations of businesses and technologies,
- the need for regulatory and other approval, and
- our inability to raise capital to fund these acquisitions.

Some of the businesses we acquire may be unprofitable or marginally profitable, or may increase the variability of our revenue recognition. If, for example, we are unable to successfully commercialize products and services related to significant in-process research and development that we have capitalized, we may have to impair the value of such assets. Accordingly, the earnings or losses of acquired businesses may dilute our earnings. For these acquired businesses to achieve acceptable levels of profitability, we would have to improve their management, operations, products and market penetration. We may not be successful in this regard and may encounter other difficulties in integrating acquired businesses into our existing operations, such as incompatible management, information or other systems, cultural differences, loss of key personnel, unforeseen regulatory requirements, previously undisclosed liabilities or difficulties in predicting financial results. Additionally, if we are not successful in selling businesses we seek to divest, the activity of such businesses may dilute our earnings and we may not be able to achieve the expected benefits of such divestitures. As a result, our financial results may differ from our forecasts or the expectations of the investment community in a given quarter or over the long term.

To finance our acquisitions, we may have to raise additional funds, either through public or private financings. We may be unable to obtain such funds or may be able to do so only on terms unacceptable to us. We may also incur expenses related to completing acquisitions or licensing technologies, or in evaluating potential acquisitions or technologies, which may adversely impact our profitability.

If we do not compete effectively, our business will be harmed.

We encounter aggressive competition from numerous competitors in many areas of our business. We may not be able to compete effectively with all of these competitors. To remain competitive, we must develop new products and periodically enhance our existing products. We anticipate that we may also have to adjust the prices of many of our products to stay competitive. In addition, new competitors, technologies or market trends may emerge to threaten or reduce the value of entire product lines.

Our quarterly operating results could be subject to significant fluctuation, and we may not be able to adjust our operations to effectively address changes we do not anticipate, which could increase the volatility of our stock price and potentially cause losses to our shareholders.

Given the nature of the markets in which we participate, we cannot reliably predict future revenue and profitability. Changes in competitive, market and economic conditions may require us to adjust our operations, and we may not be able to make those adjustments or make them quickly enough to adapt to changing conditions. A high proportion of our costs are fixed in the short term, due in part to our research and development and manufacturing costs. As a result, small declines in sales could disproportionately affect our operating results in a quarter. Factors that may affect our quarterly operating results include:

- demand for and market acceptance of our products,
- competitive pressures resulting in lower selling prices,

- changes in the level of economic activity in regions in which we do business, including as a result of COVID-19 and other global health crises or pandemics,
- changes in general economic conditions or government funding,
- settlements of income tax audits,
- expenses incurred in connection with claims related to environmental conditions at locations where we conduct or formerly conducted operations,
- contract termination and litigation costs,
- differing tax laws and changes in those laws, or changes in the countries in which we are subject to taxation,
- changes in our effective tax rate,
- changes in industries, such as pharmaceutical and biomedical,
- changes in the portions of our revenue represented by our various products and customers,
- our ability to introduce new products,
- our competitors' announcement or introduction of new products, services or technological innovations,
- costs of raw materials, labor, energy or supplies,
- changes in healthcare or other reimbursement rates paid by government agencies and other third parties for certain of our products and services,
- our ability to realize the benefit of ongoing productivity initiatives,
- changes in the volume or timing of product orders,
- fluctuation in the expense related to the mark-to-market adjustment on postretirement benefit plans,
- changes in our assumptions underlying future funding of pension obligations,
- changes in assumptions used to determine contingent consideration in acquisitions, and
- changes in foreign currency exchange rates.

A significant disruption in third-party package delivery and import/export services, or significant increases in prices for those services, could interfere with our ability to ship products, increase our costs and lower our profitability.

We ship a significant portion of our products to our customers through independent package delivery and import/export companies, including UPS and Federal Express in the United States; TNT, UPS and DHL in Europe; and UPS in Asia. We also ship our products through other carriers, including commercial airlines, freight carriers, national trucking firms, overnight carrier services and the United States Postal Service. If one or more of the package delivery or import/export providers experiences a significant disruption in services or institutes a significant price increase, including a service disruption as a result of the COVID-19 pandemic, we may have to seek alternative providers and the delivery of our products could be prevented or delayed. Such events could cause us to incur increased shipping costs that could not be passed on to our customers, negatively impacting our profitability and our relationships with certain of our customers.

Disruptions in the supply of raw materials, certain key components and other goods from our limited or single source suppliers could have an adverse effect on the results of our business operations, and could damage our relationships with customers.

The production of our products requires a wide variety of raw materials, key components and other goods that are generally available from alternate sources of supply. However, certain critical raw materials, key components and other goods required for the production and sale of some of our principal products are available from limited or single sources of supply. We generally have multi-year contracts with no minimum purchase requirements with these suppliers, but those contracts may not fully protect us from a failure by certain suppliers to supply critical materials or from the delays inherent in being required to change suppliers and, in some cases, validate new raw materials. Such raw materials, key components and other goods can usually be obtained from alternative sources with the potential for an increase in price, decline in quality or delay in delivery. A prolonged inability to obtain certain raw materials, key components or other goods is possible and could have an adverse effect on our business operations, and could damage our relationships with customers. In addition, a global health crisis or pandemic such as the COVID-19 pandemic could have a significant adverse effect on our supply chain.

We are subject to the rules of the Securities and Exchange Commission requiring disclosure as to whether certain materials known as conflict minerals (tantalum, tin, gold, tungsten and their derivatives) that may be contained in our products are mined from the Democratic Republic of the Congo and adjoining countries. As a result of these rules, we may incur additional costs in complying with the disclosure requirements and in satisfying those customers who require that the components used in our products be certified as conflict-free, and the potential lack of availability of these materials at competitive prices could increase our production costs.

If we do not retain our key personnel, our ability to execute our business strategy will be limited.

Our success depends to a significant extent upon the continued service of our executive officers and key management and technical personnel, particularly our experienced engineers and scientists, and on our ability to continue to attract, retain, and motivate qualified personnel. The competition for these employees is intense. The loss of the services of key personnel could have a material adverse effect on our operating results. In addition, there could be a material adverse effect on us should the turnover rates for key personnel increase significantly or if we are unable to continue to attract qualified personnel. We do not maintain any key person life insurance policies on any of our officers or employees.

Our success also depends on our ability to execute leadership succession plans. The inability to successfully transition key management roles could have a material adverse effect on our operating results.

If we experience a significant disruption in, or breach in security of, our information technology systems or those of our customers, suppliers or other third parties, or cybercrime, resulting in inappropriate access to or inadvertent transfer of information or assets, or if we fail to implement new systems, software and technologies successfully, our business could be adversely affected.

We rely on several centralized information technology systems throughout our company to develop, manufacture and provide products and services, keep financial records, process orders, manage inventory, process shipments to customers and operate other critical functions. Our and our third-party service providers' information technology systems may be susceptible to damage, disruptions or shutdowns due to power outages, hardware failures, computer viruses, attacks by computer hackers, telecommunication failures, user errors, catastrophes or other unforeseen events. If we were to experience a prolonged system disruption in the information technology systems that involve our interactions with customers, suppliers or other third parties, it could result in the loss of sales and customers and significant incremental costs, which could adversely affect our business. In addition, security breaches of our information technology systems or cybercrime, resulting in inappropriate access to or inadvertent transfer of information or assets, could result in losses or misappropriation of assets or unauthorized disclosure of confidential information belonging to us or to our employees, partners, customers or suppliers, which could result in our suffering significant financial or reputational damage.

Our results of operations will be adversely affected if we fail to realize the full value of our intangible assets.

As of January 2, 2022, our total assets included $11.5 billion of net intangible assets. Net intangible assets consist principally of goodwill associated with acquisitions and costs associated with securing patent rights, trademark rights, customer relationships, core technology and technology licenses and in-process research and development, net of accumulated amortization. We test certain of these items—specifically all of those that are considered “indefinite-lived”—at least annually for potential impairment by comparing the carrying value to the fair market value of the reporting unit to which they are assigned. All of our amortizing intangible assets are also evaluated for impairment should events occur that call into question the value of the intangible assets.

Adverse changes in our business, adverse changes in the assumptions used to determine the fair value of our reporting units, or the failure to grow our Discovery & Analytical Solutions and Diagnostics segments may result in impairment of our intangible assets, which could adversely affect our results of operations.

Risks Related to our Intellectual Property

We may not be successful in adequately protecting our intellectual property.

Patent and trade secret protection is important to us because developing new products, processes and technologies gives us a competitive advantage, although it is time-consuming and expensive. We own many United States and foreign patents and intend to apply for additional patents. Patent applications we file, however, may not result in issued patents or, if they do, the claims allowed in the patents may be narrower than what is needed to protect fully our products, processes and technologies. The expiration of our previously issued patents may cause us to lose a competitive advantage in certain of the products and services we provide. Similarly, applications to register our trademarks may not be granted in all countries in which they are

filed. For our intellectual property that is protected by keeping it secret, such as trade secrets and know-how, we may not use adequate measures to protect this intellectual property.

Third parties have in the past and may in the future also challenge the validity of our issued patents, may circumvent or "design around" our patents and patent applications, or claim that our products, processes or technologies infringe their patents. In addition, third parties may assert that our product names infringe their trademarks. We may incur significant expense in legal proceedings to protect our intellectual property against infringement by third parties or to defend against claims of infringement by third parties. Claims by third parties in pending or future lawsuits could result in awards of substantial damages against us or court orders that could effectively prevent us from manufacturing, using, importing or selling our products in the United States or other countries.

If we are unable to renew our licenses or otherwise lose our licensed rights, we may have to stop selling products or we may lose competitive advantage.

We may not be able to renew our existing licenses, or licenses we may obtain in the future, on terms acceptable to us, or at all. If we lose the rights to a patented or other proprietary technology, we may need to stop selling products incorporating that technology and possibly other products, redesign our products or lose a competitive advantage. Potential competitors could in-license technologies that we fail to license and potentially erode our market share.

Our licenses typically subject us to various economic and commercialization obligations. If we fail to comply with these obligations, we could lose important rights under a license, such as the right to exclusivity in a market, or incur losses for failing to comply with our contractual obligations. In some cases, we could lose all rights under the license. In addition, rights granted under the license could be lost for reasons out of our control. For example, the licensor could lose patent protection for a number of reasons, including invalidity of the licensed patent, or a third-party could obtain a patent that curtails our freedom to operate under one or more licenses.

Risks Related to Legal, Government and Regulatory Matters

The manufacture and sale of products and services may expose us to product and other liability claims for which we could have substantial liability.

We face an inherent business risk of exposure to product and other liability claims if our products, services or product candidates are alleged or found to have caused injury, damage or loss. We may be unable to obtain insurance with adequate levels of coverage for potential liability on acceptable terms or claims of this nature may be excluded from coverage under the terms of any insurance policy that we obtain. If we are unable to obtain such insurance or the amounts of any claims successfully brought against us substantially exceed our coverage, then our business could be adversely impacted.

If we fail to maintain satisfactory compliance with the regulations of the United States Food and Drug Administration and other governmental agencies in the United States and abroad, we may be forced to recall products and cease their manufacture and distribution, and we could be subject to civil, criminal or monetary penalties.

Our operations are subject to regulation by different state and federal government agencies in the United States and other countries, as well as to the standards established by international standards bodies. If we fail to comply with those regulations or standards, we could be subject to fines, penalties, criminal prosecution or other sanctions. Some of our products are subject to regulation by the United States Food and Drug Administration and similar foreign and domestic agencies. These regulations govern a wide variety of product activities, from design and development to labeling, manufacturing, promotion, sales and distribution. If we fail to comply with those regulations or standards, we may have to recall products, cease their manufacture and distribution, and may be subject to fines or criminal prosecution.

We are also subject to a variety of laws, regulations and standards that govern, among other things, the importation and exportation of products, the handling, transportation and manufacture of toxic or hazardous substances, the collection, storage, transfer, use, disclosure, retention and other processing of personal data, and our business practices in the United States and abroad such as anti-bribery, anti-corruption and competition laws. This requires that we devote substantial resources to maintaining our compliance with those laws, regulations and standards. A failure to do so could result in the imposition of civil, criminal or monetary penalties having a material adverse effect on our operations.

Changes in governmental regulations may reduce demand for our products or increase our expenses.

We compete in markets in which we or our customers must comply with federal, state, local and foreign regulations, such as environmental, health and safety, data privacy and food and drug regulations. We develop, configure and market our products

to meet customer needs created by these regulations. Any significant change in these regulations could reduce demand for our products or increase our costs of producing these products.

The healthcare industry is highly regulated and if we fail to comply with its extensive system of laws and regulations, we could suffer fines and penalties or be required to make significant changes to our operations which could have a significant adverse effect on the results of our business operations.

The healthcare industry, including the genetic screening market, is subject to extensive and frequently changing international and United States federal, state and local laws and regulations. In addition, legislative provisions relating to healthcare fraud and abuse, patient privacy violations and misconduct involving government insurance programs provide federal enforcement personnel with substantial powers and remedies to pursue suspected violations. We believe that our business will continue to be subject to increasing regulation as the federal government continues to strengthen its position on healthcare matters, the scope and effect of which we cannot predict. If we fail to comply with applicable laws and regulations, we could suffer civil and criminal damages, fines and penalties, exclusion from participation in governmental healthcare programs, and the loss of various licenses, certificates and authorizations necessary to operate our business, as well as incur liabilities from third-party claims, all of which could have a significant adverse effect on our business.

Risks Related to our Foreign Operations

Economic, political and other risks associated with foreign operations could adversely affect our international sales and profitability.

Because we sell our products worldwide, our businesses are subject to risks associated with doing business internationally. Our sales originating outside the United States represented the majority of our total revenue in fiscal year 2021. We anticipate that sales from international operations will continue to represent a substantial portion of our total revenue. In addition, many of our manufacturing facilities, employees and suppliers are located outside the United States. Accordingly, our future results of operations could be harmed by a variety of factors, including:

- changes in actual, or from projected, foreign currency exchange rates,
- a global health crisis of unknown duration, such as the COVID-19 pandemic,
- wars, conflicts, or other changes in a country's or region's political or economic conditions, particularly in developing or emerging markets,
- longer payment cycles of foreign customers and timing of collections in foreign jurisdictions,
- trade protection measures including embargoes, sanctions and tariffs, such as the sanctions recently implemented by the U.S. and other governments on the Russian Federation and related parties, the extent and impact of which have yet to be fully determined,
- import or export licensing requirements and the associated potential for delays or restrictions in the shipment of our products or the receipt of products from our suppliers,
- policies in foreign countries benefiting domestic manufacturers or other policies detrimental to companies headquartered in the United States,
- differing tax laws and changes in those laws, or changes in the countries in which we are subject to tax,
- adverse income tax audit settlements or loss of previously negotiated tax incentives,
- differing business practices associated with foreign operations,
- difficulty in transferring cash between international operations and the United States,
- difficulty in staffing and managing widespread operations,
- differing labor laws and changes in those laws,
- differing protection of intellectual property and changes in that protection,
- expanded enforcement of laws related to data protection and personal privacy,
- increasing global enforcement of anti-bribery and anti-corruption laws, and
- differing regulatory requirements and changes in those requirements.

The United Kingdom's withdrawal from the European Union could adversely impact our results of operations.

Nearly 10% of our net sales from continuing operations in fiscal year 2021 came from the United Kingdom. Following the referendum vote in the United Kingdom in June 2016 in favor of leaving the European Union, on January 31, 2020, the country formally withdrew from the European Union (commonly referred to as "Brexit") and, on December 24, 2020, the United Kingdom and the European Union entered into a Trade and Cooperation Agreement to govern the relationship between the United Kingdom and the European Union following Brexit. The potential effects of Brexit remain uncertain. Brexit has caused, and may continue to create, volatility in global stock markets and regional and global economic uncertainty particularly in the United Kingdom financial and banking markets. Weakening of economic conditions or economic uncertainties tend to harm our business, and if such conditions worsen in the United Kingdom or in the rest of Europe, it may have a material adverse effect on our operations and sales.

Any significant weakening of the Great Britain Pound to the U.S. dollar will have an adverse impact on our European revenues due to the importance of our sales in the United Kingdom. Currency exchange rates in the pound sterling and the euro with respect to each other and the U.S. dollar have already been adversely affected by Brexit and that may continue to be the case.

Risks Related to our Debt

We have a substantial amount of outstanding debt, which could impact our ability to obtain future financing and limit our ability to make other expenditures in the conduct of our business.

We have a substantial amount of debt and other financial obligations. Our debt level and related debt service obligations could have negative consequences, including:

- requiring us to dedicate significant cash flow from operations to the payment of principal and interest on our debt, which reduces the funds we have available for other purposes, such as acquisitions and stock repurchases;
- reducing our flexibility in planning for or reacting to changes in our business and market conditions;
- exposing us to interest rate risk as a portion of our debt obligations are at variable rates;
- increasing our foreign currency risk as a portion of our debt obligations are in denominations other than the US dollar; and
- increasing the chances of a downgrade of our debt ratings due to the amount or intended purpose of our debt obligations.

We may incur additional indebtedness in the future to meet future financing needs. If we add new debt, the risks described above could increase. In addition, the market for both public and private debt offerings could experience liquidity concerns and increased volatility as a result of the COVID-19 pandemic, which could ultimately increase our borrowing costs and limit our ability to obtain future financing.

Restrictions in our senior unsecured revolving credit facility and other debt instruments may limit our activities.

Our senior unsecured revolving credit facility, unsecured term loan credit facility, senior unsecured notes due in 2023 ("2023 Notes"), senior unsecured notes due in 2024 ("2024 Notes"), senior unsecured notes due in 2026 ("2026 Notes"), senior unsecured notes due in 2028 ("2028 Notes"), senior unsecured notes due in 2029 ("2029 Notes"), senior unsecured notes due in 2031 ("March 2031 Notes"), senior unsecured notes due in 2031 ("September 2031 Notes") and senior unsecured notes due in 2051 ("2051 Notes") include restrictive covenants that limit our ability to engage in activities that could otherwise benefit our company. These include restrictions on our ability and the ability of our subsidiaries to:

- pay dividends on, redeem or repurchase our capital stock,
- sell assets,
- incur obligations that restrict our subsidiaries' ability to make dividend or other payments to us,
- guarantee or secure indebtedness,
- enter into transactions with affiliates, and
- consolidate, merge or transfer all, or substantially all, of our assets and the assets of our subsidiaries on a consolidated basis.

We are also required to meet specified financial ratios under the terms of certain of our existing debt instruments. Our ability to comply with these financial restrictions and covenants is dependent on our future performance, which is subject to prevailing economic conditions and other factors, including factors that are beyond our control, such as foreign exchange rates, interest rates, changes in technology and changes in the level of competition. In addition, if we are unable to maintain our investment grade credit rating, our borrowing costs would increase and we would be subject to different and potentially more restrictive financial covenants under some of our existing debt instruments.

Any future indebtedness that we incur may include similar or more restrictive covenants. Our failure to comply with any of the restrictions in our senior unsecured revolving credit facility, unsecured term loan credit facility, the 2023 Notes, the 2024 Notes, the 2026 Notes, the 2028 Notes, the 2029 Notes, the March 2031 Notes, the September 2031 Notes, the 2051 Notes or any future indebtedness may result in an event of default under those debt instruments, which could permit acceleration of the debt under those debt instruments, and require us to prepay that debt before its scheduled due date under certain circumstances.

Discontinuation, reform, or replacement of LIBOR may adversely affect our variable rate debt.

Our indebtedness under our senior unsecured revolving credit facility and unsecured term loan credit facility bear interest at fluctuating interest rates, primarily based on the London Interbank Offered Rate ("LIBOR") for deposits of U.S. dollars. In July 2017, the United Kingdom Financial Conduct Authority (the authority that regulates LIBOR) announced that it intends to stop compelling banks to submit rates for the calculation of LIBOR after 2021. The discontinuation date for submission and publication of rates for certain tenors of U.S. dollar LIBOR (1-month, 3-month, 6-month, and 12-month) was subsequently extended by the ICE Benchmark Administration (the administrator of LIBOR) until June 30, 2023. It is unclear whether new methods of calculating LIBOR will be established such that it continues to exist after 2023. The Alternative Reference Rates Committee in the United States has proposed that the Secured Overnight Financing Rate ("SOFR"), calculated using short-term repurchase agreements backed by U.S. Treasury securities, is the rate that represents best practice as the alternative to U.S. dollar LIBOR for use in derivatives and other financial contracts that are currently indexed to LIBOR. If LIBOR is discontinued, reformed or replaced, we expect that our indebtedness under our senior unsecured revolving credit facility and unsecured term loan credit facility will be indexed to a replacement benchmark based on SOFR. Any such change could cause the effective interest rate under our senior unsecured revolving credit facility and unsecured term loan credit facility and our overall interest expense to increase, in which event we may have difficulties making interest payments and funding our other fixed costs, and our available cash flow for general corporate requirements may be adversely affected.

Risks Related to Ownership of our Common Stock

Our share price will fluctuate.

Over the last several years, stock markets in general and our common stock in particular have experienced significant price and volume volatility. Both the market price and the daily trading volume of our common stock may continue to be subject to significant fluctuations due not only to general stock market conditions but also to a change in sentiment in the market regarding our operations and business prospects. In addition to the risk factors discussed above, the price and volume volatility of our common stock may be affected by:

- operating results that vary from our financial guidance or the expectations of securities analysts and investors,
- the financial performance of the major end markets that we target,
- the operating and securities price performance of companies that investors consider to be comparable to us,
- announcements of strategic developments, acquisitions and other material events by us or our competitors,
- changes in global financial markets and global economies and general market conditions, such as interest or foreign exchange rates, inflation, commodity and equity prices and the value of financial assets, and
- changes to economic conditions arising from global health crises such as the COVID-19 pandemic.

Dividends on our common stock could be reduced or eliminated in the future.

On October 27, 2021, we announced that our Board of Directors (our "Board") had declared a quarterly dividend of $0.07 per share for the fourth quarter of fiscal year 2021 that was paid in February 2022. On January 27, 2022, we announced that our Board had declared a quarterly dividend of $0.07 per share for the first quarter of fiscal year 2022 that will be payable in May 2022. In the future, our Board may determine to reduce or eliminate our common stock dividend in order to fund investments for growth, repurchase shares or conserve capital resources.

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

Not applicable.

Item 2. ***Properties***

We conduct operations for both our Discovery & Analytical Solutions and Diagnostics segments in manufacturing and assembly plants, research laboratories, administrative offices and other facilities. A majority of all such facilities utilized are leased from third parties. Our real property leases are both short-term and long-term. See Note 21, *Leases,* in the Notes to Consolidated Financial Statements for further discussion of our leases.

Item 3. ***Legal Proceedings***

We are subject to various claims, legal proceedings and investigations covering a wide range of matters that arise in the ordinary course of our business activities. Although we have established accruals for potential losses that we believe are probable and reasonably estimable, in the opinion of our management, based on its review of the information available at this time, the total cost of resolving these contingencies at January 2, 2022 should not have a material adverse effect on our consolidated financial statements included in this annual report on Form 10-K. However, each of these matters is subject to uncertainties, and it is possible that some of these matters may be resolved unfavorably to us.

Item 4. ***Mine Safety Disclosures***

Not applicable.

INFORMATION ABOUT OUR EXECUTIVE OFFICERS

Listed below are our executive officers as of March 3, 2022. No family relationship exists between any one of these executive officers and any of the other executive officers or directors.

Name	Position	Age
Prahlad Singh	President and Chief Executive Officer	57
James M. Mock	Senior Vice President and Chief Financial Officer	45
Joel S. Goldberg	Senior Vice President, Administration, General Counsel and Secretary	53
Daniel R. Tereau	Senior Vice President, Strategy and Business Development	55
Miriame Victor	Senior Vice President, Chief Commercial Officer	41
Tajinder Vohra	Senior Vice President, Global Operations	56
Andrew Okun	Vice President, Chief Accounting Officer and Treasurer	52

Prahlad Singh, 57. Dr. Singh currently serves as President and Chief Executive Officer of PerkinElmer, having previously served as President and Chief Operating Officer of PerkinElmer from January 2019 through December 2019. Dr. Singh joined PerkinElmer as the President of our Diagnostics business in May 2014. He was elected Senior Vice President in September 2016 and Executive Vice President in March 2018. Prior to joining PerkinElmer, Dr. Singh was General Manager of GE Healthcare's Women's Health business from 2012 to 2014, with responsibility for its mammography and bone densitometry businesses. Before that, Dr. Singh held senior executive level roles in strategy, business development and mergers & acquisitions at both GE Healthcare and Philips Healthcare. Earlier in his career, he held leadership roles of increasing responsibility at DuPont Pharmaceuticals and subsequently Bristol-Myers Squibb Medical Imaging, which included managing the Asia Pacific and Middle East region. Dr. Singh holds a doctoral degree in chemistry from the University of Missouri-Columbia and a Master of Business Administration from Northeastern University. His research work has resulted in several issued patents and publications in peer reviewed journals.

James M. Mock, 45. Mr. Mock joined PerkinElmer in May 2018 as our Senior Vice President and Chief Financial Officer. Prior to joining us, Mr. Mock served for nearly 20 years in a wide range of financial oversight capacities within General Electric Company (GE). Mr. Mock was most recently Vice President, Corporate Audit Staff, a position in which he served from October 2015 to April 2018, where he worked globally across GE's businesses on controllership reviews and operational excellence projects. Mr. Mock previously served in a number of progressively responsible leadership positions with GE both in the United States and overseas, including as Vice President and Chief Financial Officer for GE Oil & Gas, Subsea Systems, from 2014 to 2015. Mr. Mock received a Bachelor's degree in Economics from St. Lawrence University.

Joel S. Goldberg, *53*. Mr. Goldberg currently serves as our Senior Vice President, Administration, General Counsel and Secretary, having joined as our Senior Vice President, General Counsel and Secretary in July 2008. Prior to joining us, Mr. Goldberg spent seven years at Millennium Pharmaceuticals, Inc., where he most recently served as Vice President, Chief Compliance Officer and Secretary. During his seven years with Millennium, he focused in the areas of mergers and acquisitions, strategic alliances, investment and financing transactions, securities and healthcare related compliance, and employment law. Previously, he was an associate of the law firm Edwards & Angell, LLP. Mr. Goldberg graduated from the Northeastern University School of Law and also holds a Master of Business Administration from Northeastern University. He completed his undergraduate degree at the University of Wisconsin-Madison.

Daniel R. Tereau, 55. Mr. Tereau was appointed Senior Vice President, Strategy and Business Development in January 2016, having joined PerkinElmer in April 2014 as Vice President, Strategy and Business Development. He is responsible for leading PerkinElmer's overall strategic planning and business development activities. Prior to joining PerkinElmer, Mr. Tereau served on Novartis' leadership team as Senior Vice President and Global Head of Strategy, Business Development and Licensing from 2011 to 2014, where he was responsible for global strategy and business development for the Consumer Health division. Prior to 2011, Mr. Tereau held similar roles at Thermo Fisher Scientific and GE Healthcare. Mr. Tereau holds a Bachelor of Science degree in finance from Ferris State University, a Juris Doctorate from Wayne State University, and earned his Master of Business Administration from Yale University.

Miriame Victor, 41. Ms. Victor joined PerkinElmer in October 2014 as Sales Leader for the Diagnostics business in Europe and most recently served as Vice President and General Manager for EMEAI, prior to being appointed Senior Vice President and Chief Commercial Officer in January 2021. In that role, she oversees PerkinElmer's product commercialization efforts across all businesses, having previously completed the successful consolidation of the Diagnostics and Discovery & Analytical Solutions businesses into one unified commercial organization. Prior to joining PerkinElmer, Ms. Victor held various commercial leadership positions in the pharmaceutical industry with MSD and Novartis, and in the medical device industry

with GE Healthcare. Ms. Victor holds a Bachelor of Science degree in pharmacy and pharmaceutical sciences from Cairo University and earned her Master of Business Administration from Arab Academy for Science, Technology and Maritime Transport.

Tajinder Vohra, 56. Mr. Vohra joined PerkinElmer in October 2015 as Vice President of Global Operations and was appointed Senior Vice President Global Operations in January 2018. He oversees all of PerkinElmer's global operations, including manufacturing, supply chain, customer care and distribution. Prior to joining PerkinElmer, Mr. Vohra served at ABB as a Country Operations Leader from 2011 to 2015, where he was responsible for India-wide operations and Supply Chains for India, Middle East and Africa. Prior to 2011, Mr. Vohra was a Senior Vice President with Genpact, managing Supply Chain and IT businesses, and held a number of global management operational positions with GE Healthcare. Mr. Vohra received his Bachelor's degree in Mechanical Engineering from the University of Delhi, Master's degree in Industrial Engineering from the University of Alabama and Master's degree in Manufacturing Engineering from Lehigh University. Mr. Vohra is a certified Six Sigma Black Belt, and was trained in lean manufacturing at the Shingijitsu Training Institute in Japan.

Andrew Okun, 52. Mr. Okun serves as our Vice President, Chief Accounting Officer and Treasurer. Mr. Okun has served as Vice President and Chief Accounting Officer since April 2011 and was appointed Treasurer in February 2021. Mr. Okun joined us in 2001 and has served in financial and controllership positions of increasing responsibility, including Director of Finance for the Optoelectronics business from 2001 through 2005, Vice President of Finance from 2005 through 2009 and Vice President and Corporate Controller from 2009 through 2011. Prior to joining us, Mr. Okun most recently worked for Honeywell International as a Site Controller as well as for Coopers & Lybrand. Mr. Okun is a Certified Public Accountant and earned his Master of Business Administration from the University of Virginia. He completed his undergraduate degree at the University of California, Santa Barbara.

PART II

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

Common Equity

We only have one class of common stock. Our common stock is listed on the New York Stock Exchange under the symbol "PKI". As of February 25, 2022, we had approximately 3,200 holders of record of our common stock.

Stock Repurchases

The following table provides information with respect to the shares of common stock repurchased by us for the periods indicated.

	Issuer Repurchases of Equity Securities			
Period	Total Number of Shares Purchased[1]	Average Price Paid Per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs[2]	Maximum Aggregate Number (or Approximate Dollar Value) of Shares that May Yet Be Purchased Under the Plans or Programs
October 4, 2021 - October 31, 2021	26	$ 169.68	—	$ 187,415,787
November 1, 2021 - November 28, 2021	165	183.55	—	187,415,787
November 29, 2021 - January 2, 2022	132	188.30	—	187,415,787
Activity for quarter ended January 2, 2022	323	$ 184.37	—	$ 187,415,787

(1) Our Board of Directors (our "Board") has authorized us to repurchase shares of common stock to satisfy minimum statutory tax withholding obligations in connection with the vesting of restricted stock awards and restricted stock unit awards granted pursuant to our equity incentive plans and to satisfy obligations related to the exercise of stock options made pursuant to our equity incentive plans. During the fourth quarter of fiscal year 2021, we repurchased 323 shares of common stock for this purpose at an aggregate cost of $0.1 million. During fiscal year 2021, we repurchased 71,248 shares of common stock for this purpose at an aggregate cost of $10.5 million. The repurchased shares have been reflected as additional authorized but unissued shares, with the payments reflected in common stock and capital in excess of par value.

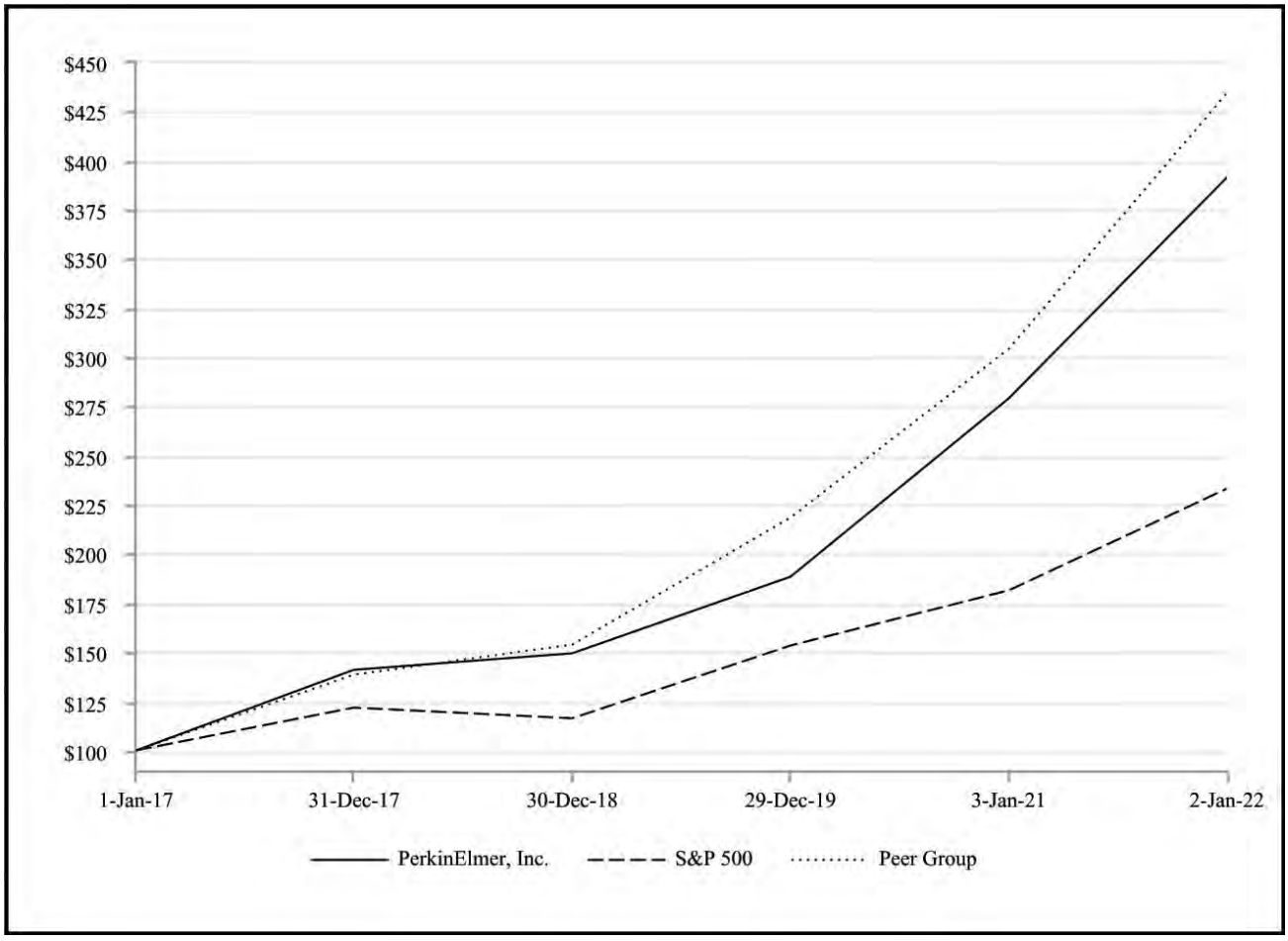
(2) On July 31, 2020, our Board authorized us to repurchase shares of common stock for an aggregate amount up to $250.0 million under a stock repurchase program (the "Repurchase Program"). The Repurchase Program will expire on July 27, 2022 unless terminated earlier by our Board and may be suspended or discontinued at any time. During fiscal year 2021, we repurchased 433,000 shares of common stock under the Repurchase Program for an aggregate cost of $62.6 million. As of January 2, 2022, $187.4 million remained available for aggregate repurchases of shares under the Repurchase Program.

Stock Performance Graph

Set forth below is a line graph comparing the cumulative total shareholder return on our common stock against the cumulative total return of the S&P Composite-500 Index and a Peer Group Index for the five fiscal years from January 1, 2017 to January 2, 2022. Our Peer Group Index consists of Agilent Technologies Inc., Thermo Fisher Scientific Inc., and Waters Corporation. The peer group is the same as the peer group used in the stock performance graph in our Annual Report on Form 10-K for the fiscal year ended January 3, 2021.

Comparison of Five-Year Cumulative Total Return
Among PerkinElmer, Inc. Common Stock, S&P Composite-500 and
Peer Group Index

TOTAL RETURN TO SHAREHOLDERS
(Includes reinvestment of dividends)



	1-Jan-17	31-Dec-17	30-Dec-18	29-Dec-19	3-Jan-21	2-Jan-22
PerkinElmer, Inc.	$ 100.00	$ 140.85	$ 149.40	$ 188.19	$ 279.04	$ 391.68
S&P 500 Index	$ 100.00	$ 121.83	$ 116.49	$ 153.17	$ 181.35	$ 233.41
Peer Group	$ 100.00	$ 138.59	$ 153.94	$ 218.62	$ 304.44	$ 434.63

Item 6. [Reserved]

Reserved.

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

This annual report on Form 10-K, including the following management's discussion and analysis, contains forward-looking information that you should read in conjunction with the consolidated financial statements and notes to consolidated financial statements that we have included elsewhere in this annual report on Form 10-K. For this purpose, any statements contained in this report that are not statements of historical fact may be deemed to be forward-looking statements. Words such as "believes," "plans," "anticipates," "expects," "will" and similar expressions are intended to identify forward-looking statements. Our actual results may differ materially from the plans, intentions or expectations we disclose in the forward-looking statements we make. We have included important factors above under the heading "Risk Factors" in Item 1A above that we believe could cause actual results to differ materially from the forward-looking statements we make. We are not obligated to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise.

Accounting Period

Our fiscal year ends on the Sunday nearest December 31. We report fiscal years under a 52/53 week format and as a result, certain fiscal years will contain 53 weeks. Each of the fiscal years ended January 2, 2022 ("fiscal year 2021") and December 29, 2019 ("fiscal year 2019") included 52 weeks. The fiscal year ended January 3, 2021 ("fiscal year 2020") included 53 weeks. The fiscal year ending January 1, 2023 ("fiscal year 2022") will include 52 weeks.

Overview of Fiscal Year 2021

During fiscal year 2021, we continued to see strong returns from our acquisitions as well as our organic investments across technology, marketing and people. Our overall revenue in fiscal year 2021 increased $1,284.4 million, or 34%, as compared to fiscal year 2020, reflecting an increase of $865.0 million, or 42%, in our Diagnostics segment revenue and an increase of $419.4 million, or 24%, in our Discovery & Analytical Solutions segment revenue. Revenue from our 2021 acquisitions contributed $219.7 million to the increase in our overall revenue during fiscal year 2021. The increase in our Diagnostics segment revenue during fiscal year 2021 was primarily driven by increased demand for our COVID-19 product offerings resulting in an increase of $749.0 million in our immunodiagnostics revenue. Our Diagnostics segment revenue also increased during fiscal year 2021 due to growth in our core product offerings resulting in an increase of $61.9 million in our reproductive health revenue and an increase of $54.2 million in our applied genomics revenue. Revenue from our 2021 acquisitions contributed $95.5 million to the increase in our Diagnostics segment revenue during fiscal year 2021. The increase in our Discovery & Analytical Solutions segment revenue during fiscal year 2021 was driven by an increase of $305.1 million in our life sciences market revenue and an increase of $114.3 million in our applied markets revenue. Revenue from our 2021 acquisitions contributed $124.3 million to the increase in our Discovery & Analytical Solutions segment revenue during fiscal year 2021.

In our Diagnostics segment, we experienced tremendous demand for our immunodiagnostics COVID-19 product offerings, particularly in the Americas, partially offset by a decline in demand for these product offerings in the Asia-Pacific region. We also experienced strong growth in our immunodiagnostics and applied genomics core product and service offerings across all regions. In our reproductive health business, an expanded range of product offerings and increased geographic reach more than offset the impact of declining birthrates.

In our Discovery & Analytical Solutions segment, the increase in our life sciences market revenue was the result of an increase in revenue in our pharmaceutical and biotechnology markets, as well as an increase in revenue from our Informatics business. The increase in our applied markets revenue was driven by increased demand from our industrial, environmental and food markets.

Our consolidated gross margins increased 49 basis points in fiscal year 2021, as compared to fiscal year 2020, primarily due to higher sales volume, a favorable shift in product mix and continued productivity initiatives to improve our supply chain, partially offset by increased amortization expense. Our consolidated operating margin increased 42 basis points in fiscal year 2021, as compared to fiscal year 2020, primarily due to higher sales volume leverage and increased sales of our COVID-19 products offerings, which were partially offset by increased amortization of intangible assets, investments in new product development and growth initiatives.

Overall, we believe that our strategic priorities and recent portfolio transformations, coupled with our expanded range of product offerings, leading market positions, global scale and financial strength provides us with a foundation for continued revenue growth, strong margins and cash flows, and long-term earnings per share growth.

Consolidated Results of Operations

Fiscal Year 2021 Compared to Fiscal Year 2020

Revenue

Revenue for fiscal year 2021 was $5.1 billion, as compared to $3.8 billion for fiscal year 2020, an increase of $1.3 billion, or 34%, which includes an approximate 8% increase in revenue attributable to acquisitions and divestitures, and a 1% increase in revenue attributable to favorable changes in foreign exchange rates. Revenue from our 2021 acquisitions contributed $219.7 million to the increase in our overall revenue during fiscal year 2021. The analysis in the remainder of this paragraph compares segment revenue for fiscal year 2021 as compared to fiscal year 2020 and includes the effect of foreign exchange rate fluctuations, and acquisitions and divestitures. The total increase in revenue reflects an increase in our Diagnostics segment revenue of $865.0 million, or 42%, due to increased demand for our COVID-19 product offerings resulting in an increase of $749.0 million in our immunodiagnostics revenue. Our Diagnostics segment revenue also increased during fiscal year 2021 due to growth in our core product offerings resulting in an increase of $61.9 million in our reproductive health revenue and an increase of $54.2 million in our applied genomics revenue. Our Discovery & Analytical Solutions segment revenue increased by $419.4 million, or 24%, due to an increase of $305.1 million from our life sciences market revenue and an increase of $114.3 million from our applied markets revenue. As a result of adjustments to deferred revenue related to certain acquisitions required by business combination rules, we did not recognize $0.8 million of revenue primarily related to our Diagnostics segment for each of fiscal years 2021 and 2020 and $1.8 million and $0.3 million of revenue primarily related to our Discovery & Analytical Solutions segment in fiscal years 2021 and 2020 that otherwise would have been recorded by the acquired businesses during each of the respective periods.

Cost of Revenue

Cost of revenue for fiscal year 2021 was $2.2 billion, as compared to $1.7 billion for fiscal year 2020, an increase of approximately $543.0 million, or 32%. As a percentage of revenue, cost of revenue decreased to 43.7% in fiscal year 2021 from 44.2% in fiscal year 2020, resulting in an increase in gross margin of approximately 49 basis points to 56.3% in fiscal year 2021 from 55.8% in fiscal year 2020. Amortization of intangible assets increased and was $115.1 million for fiscal year 2021, as compared to $65.3 million for fiscal year 2020. Amortization of intangible assets from our 2021 acquisitions amounted to $34.0 million. The amortization of purchase accounting adjustments to record the inventory from certain acquisitions added an incremental expense of $35.2 million for fiscal year 2021, as compared to $2.8 million for fiscal year 2020. Other purchase accounting adjustments added an incremental expense of $1.8 million for fiscal year 2021, of which $1.6 million was acquisition-related stock compensation and $0.2 million was increased depreciation on property, plant and equipment. Asset impairment was $7.9 million for fiscal year 2020. In addition to the factors noted above, the overall increase in gross margin was primarily the result of higher sales volume, a favorable shift in product mix and continued productivity initiatives to improve our supply chain, partially offset by increased amortization expense.

Selling, General and Administrative Expenses

Selling, general and administrative expenses for fiscal year 2021 were $1,227.5 million, as compared to $917.9 million for fiscal year 2020, an increase of approximately $309.6 million, or 33.7%. As a percentage of revenue, selling, general and administrative expenses decreased to 24.2% in fiscal year 2021 from 24.3% in fiscal year 2020. Amortization of intangible assets increased to $175.1 million for fiscal year 2021, as compared to $127.3 million for fiscal year 2020. Amortization of intangible assets from our 2021 acquisitions amounted to $37.2 million. Acquisition and divestiture-related expenses added an incremental expense of $83.4 million for fiscal year 2021, of which $3.9 million was acquisition-related stock compensation, as compared to acquisition and divestiture-related expenses increasing expenses by $8.7 million for fiscal year 2020. Purchase accounting adjustments added an incremental expense of $3.2 million for fiscal year 2021, of which $3.1 million was change in contingent consideration and $0.1 million was increased depreciation on property, plant and equipment, as compared to purchase accounting adjustments decreasing expenses by $8.8 million for fiscal year 2020, which was attributable to change in contingent consideration. Asset impairment costs added an incremental expense of $3.9 million for fiscal year 2021. Legal costs for significant litigation matters and settlements were $0.1 million for fiscal year 2021, as compared to $7.1 million for fiscal year 2020. Costs for significant environmental matters were $5.2 million for fiscal year 2020. In addition to the above items, the increase in selling, general and administrative expenses was primarily the result of costs related to investments in people, digital capabilities and innovation, and recent acquisitions amplified by pandemic-related cost controls and disruptions in the prior year.

Research and Development Expenses

Research and development expenses for fiscal year 2021 were $275.0 million, as compared to $205.4 million for fiscal year 2020, an increase of $69.6 million, or 33.9%. Research and development expenses from our 2021 acquisitions were $25.4 million. As a percentage of revenue, research and development expenses were flat at 5.4% in each of fiscal years 2021 and 2020. Stock compensation related to our acquisitions added an incremental expense of $1.4 million in fiscal year 2021. Purchase accounting adjustments for depreciation on property, plant and equipment added an incremental expense of $0.1 million in fiscal year 2021. The increase in research and development expenses was driven by our investments in new product development.

Restructuring and Other Costs, Net

We have undertaken a series of restructuring actions related to the impact of acquisitions and divestitures, the alignment of our operations with our growth strategy and the integration of our business units and productivity initiatives. Restructuring and other costs, net were $16.4 million for fiscal year 2021 as compared to $8.0 million for fiscal year 2020.

We implemented restructuring plans in fiscal years 2021 and 2020, consisting of workforce reductions principally intended to realign resources to emphasize growth initiatives and integrate new acquisitions.

We have also terminated various contractual commitments in connection with certain disposal activities and relocating operations and have recorded charges, to the extent applicable, for the costs of terminating these contracts before the end of their terms and the costs that will continue to be incurred for the remaining terms without economic benefit to us. The aggregate charges for these actions totaled $0.2 million during fiscal year 2020. See Note 4, *Restructuring and Other Costs, Net,* in the Notes to Consolidated Financial Statements for further discussion of the restructuring activities.

Interest and Other Expense, Net

Interest and other expense, net, consisted of the following for the fiscal years ended:

	January 2, 2022	January 3, 2021
	(In thousands)	
Interest income	$ (2,241)	$ (1,010)
Interest expense including costs of bridge financing	102,128	49,712
Change in fair value of financial securities	(10,985)	(35)
Other components of net periodic pension (credit) cost	(39,767)	18,833
Other expense, net	3,357	4,717
Total interest and other expense, net	$ 52,492	$ 72,217

The decrease of $19.7 million in interest and other expense, net, in fiscal year 2021 as compared to fiscal year 2020 was largely due to a net pension credit of $39.8 million in fiscal year 2021 as compared to a net pension cost of $18.8 million in fiscal year 2020, a decrease in other expense, net of $1.4 million and a change in fair value of financial securities of $11.0 million, partially offset by an increase of $52.4 million in interest expense in fiscal year 2021. The increase of $52.4 million in interest expense in fiscal year 2021 was the result of $23.4 million of costs of bridge financing and debt pre-issuance hedges that were recognized in fiscal year 2021 and interest expense from new debt in fiscal year 2021. A more complete discussion of our liquidity is set forth below under the heading “Liquidity and Capital Resources.”

Provision for Income Taxes

The effective tax rates on continuing operations were 26.3% and 19.7% for fiscal years 2021 and 2020, respectively. Certain of our subsidiaries have, at various times, been granted tax relief in their respective countries, resulting in lower income taxes than would otherwise be the case under ordinary tax rates. A reconciliation of income tax expense at the U.S. federal statutory income tax rate to the recorded tax provision is as follows for the fiscal years ended:

	January 2, 2022	January 3, 2021
	(In thousands)	
Tax at statutory rate	$ 268,776	$ 190,339
Non-U.S. rate differential, net	(34,676)	(40,216)
U.S. taxation of multinational operations	9,731	9,050
State income taxes, net	37,907	13,306
Prior year tax matters	3,068	8,262
Effect of stock compensation	(2,961)	(8,818)
General business tax credits	(4,277)	(4,136)
Change in valuation allowance	3,070	10
Rate change on long term intangibles	14,031	—
Effect of foreign operations	37,147	—
Foreign consolidations	—	15,222
Others, net	4,787	(4,753)
Total	$ 336,603	$ 178,266

The variation in our effective tax rate for fiscal year 2021 is primarily affected by the recognition of $37.1 million in U.S. federal, U.S. state and non-U.S. taxes due when we repatriate foreign earnings that we no longer consider indefinitely reinvested. We also recognized $19.0 million in fiscal year 2021 and $21.8 million in fiscal year 2020 of benefits derived from tax holidays in China and Singapore. The effect of these benefits, derived from tax holidays, on basic and diluted earnings per share for fiscal year 2021 was $0.16 and $0.16, respectively, and for fiscal year 2020 was $0.20 and $0.19, respectively. The tax holiday in China is renewed every three years. We expect to renew the tax holiday for two of our subsidiaries in China that expired in fiscal year 2021. The tax holiday for one of our subsidiaries in Singapore is scheduled to expire in fiscal year 2023.

Fiscal Year 2020 Compared to Fiscal Year 2019

For a discussion of our results of operations for fiscal year 2020 as compared to fiscal year 2019, see Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations in our annual report on Form 10-K for the fiscal year ended January 3, 2021 filed with the Securities and Exchange Commission on March 2, 2021.

Business Combinations

Acquisitions in fiscal year 2021

Acquisition of BioLegend, Inc. In fiscal year 2021, we completed the acquisition of BioLegend, Inc. ("BioLegend") for an aggregate consideration of $5.7 billion. BioLegend's revenue and net loss for the period from the acquisition date to January 2, 2022 were $91.7 million and $25.8 million, respectively.

Other acquisitions in 2021. During fiscal year 2021, we also completed the acquisition of seven other businesses for aggregate consideration of $1.2 billion. The acquired businesses include Oxford Immunotec Global PLC for a total consideration of $590.9 million and Nexcelom Bioscience Holdings, LLC for a total consideration of $267.3 million, and five other businesses, which were acquired for a total consideration of $331.0 million.

Acquisitions in Fiscal Year 2020

During fiscal year 2020, we completed the acquisition of four businesses for aggregate consideration of $438.9 million. The acquired businesses include Horizon Discovery Group plc (“Horizon”), a company based in Cambridge, UK with approximately 400 employees, which was acquired on December 23, 2020 for a total consideration of $399.8 million (£296.0 million), and three other businesses which were acquired for a total consideration of $39.1 million.

See Note 3, *Business Combinations,* in the Notes to Consolidated Financial Statements for a detailed discussion of our acquisitions.

Reporting Segment Results of Continuing Operations

Discovery & Analytical Solutions

Fiscal Year 2021 Compared to Fiscal Year 2020

Revenue for fiscal year 2021 was $2,135.2 million, as compared to $1,715.8 million for fiscal year 2020, an increase of $419.4 million, or 24%, which includes an approximate 12% increase in revenue attributable to acquisitions and divestitures and a 1% increase in revenue attributable to favorable changes in foreign exchange rates. Revenue from our 2021 acquisitions contributed $124.3 million to the increase in our Discovery & Analytical Solutions segment revenue during fiscal year 2021. As a result of adjustments to deferred revenue related to certain acquisitions required by business combination rules, we did not recognize $1.8 million and $0.3 million of revenue primarily related to our Discovery & Analytical Solutions segment for fiscal years 2021 and 2020, respectively, that otherwise would have been recorded by the acquired businesses during the period. The analysis in the remainder of this paragraph compares revenue by end-market for fiscal year 2021, as compared to fiscal year 2020, and includes the effect of foreign exchange fluctuations and acquisitions and divestitures. The increase in revenue in our Discovery & Analytical Solutions segment was a result of an increase of $305.1 million in our life sciences market revenue and an increase of $114.3 million in our applied markets revenue. The increase in our life sciences market revenue was the result of an increase in revenue in our pharmaceutical and biotechnology markets driven by continued growth of our Informatics business. The increase in our applied markets revenue was driven by increased demand from our industrial, environmental and food markets.

Operating income from continuing operations for fiscal year 2021 was $189.8 million, as compared to $183.5 million for fiscal year 2020, an increase of $6.3 million, or 3%. Amortization of intangible assets increased to $113.8 million for fiscal year 2021 as compared to $76.3 million for fiscal year 2020. Amortization of intangible assets from our 2021 acquisitions amounted to $55.1 million. The amortization of purchase accounting adjustments to record the inventory from certain acquisitions added an incremental expense of $23.8 million in fiscal year 2021, as compared to $1.3 million for fiscal year 2020. Acquisition and divestiture-related costs, contingent consideration and other costs added an incremental expense of $76.6 million for fiscal year 2021, as compared to decreasing expenses by $4.0 million for fiscal year 2020. Legal costs for significant litigation matters and settlements were $5.9 million for fiscal year 2020. Restructuring and other costs, net were $11.3 million for fiscal year 2021 as compared to $3.8 million for fiscal year 2020. Excluding the factors noted above, the overall increase in operating income for fiscal year 2021 as compared to fiscal year 2020, was primarily as a result of higher sales volume and favorable product mix, partially offset by increased investments in new product development and growth initiatives.

Fiscal Year 2020 Compared to Fiscal Year 2019

For a discussion of our results of operations for fiscal year 2020 as compared to fiscal year 2019, see Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations in our annual report on Form 10-K for the fiscal year ended January 3, 2021 filed with the Securities and Exchange Commission on March 2, 2021.

Diagnostics

Fiscal Year 2021 Compared to Fiscal Year 2020

Revenue for fiscal year 2021 was $2,931.9 million, as compared to $2,066.9 million for fiscal year 2020, an increase of $865.0 million, or 42%, which includes an approximate 5% increase in revenue attributable to acquisitions and divestitures and a 2% increase in revenue attributable to favorable changes in foreign exchange rates. Revenue from our 2021 acquisitions contributed $95.5 million to the increase in our Diagnostics segment revenue during fiscal year 2021. As a result of adjustments to deferred revenue related to certain acquisitions required by business combination rules, we did not recognize $0.8 million of revenue for each of fiscal years 2021 and 2020 that otherwise would have been recorded by the acquired businesses during each of the respective periods. The increase in our Diagnostics segment revenue during fiscal year 2021 was primarily driven by increased demand for our COVID-19 product offerings resulting in an increase of $749.0 million in our immunodiagnostics revenue. Our Diagnostics segment revenue also increased during fiscal year 2021 due to growth in our core product offerings resulting in an increase of $61.9 million in our reproductive health revenue and an increase of $54.2 million in our applied genomics revenue.

Operating income from continuing operations for fiscal year 2021 was $1,219.9 million, as compared to $874.2 million for fiscal year 2020, an increase of $345.7 million, or 40%. Amortization of intangible assets increased and was $176.5 million for fiscal year 2021 as compared to $116.3 million for fiscal year 2020. Amortization of intangible assets from our 2021 acquisitions amounted to $16.2 million. Restructuring and other costs, net increased and were $5.1 million for fiscal year 2021 as compared to $4.3 million for fiscal year 2020. Acquisition and divestiture-related expenses, contingent consideration and other costs added an incremental expense of $15.9 million in fiscal year 2021, as compared to an incremental expense of $5.0 million for fiscal year 2020. The amortization of purchase accounting adjustments to record the inventory from certain acquisitions added an incremental expense of $11.4 million in fiscal year 2021, as compared to $1.5 million for fiscal year 2020. Legal costs for significant litigation matters and settlements were $0.1 million for fiscal year 2021, as compared to $1.2 million for fiscal year 2020. Asset impairment was $3.9 million for fiscal year 2021, as compared to $7.9 million for fiscal year 2020. Excluding the factors noted above, operating income increased during fiscal year 2021, as compared to fiscal year 2020, primarily as a result of higher sales volume and favorable product mix, partially offset by increased investments in new product development and growth initiatives.

Fiscal Year 2020 Compared to Fiscal Year 2019

For a discussion of our results of operations for fiscal year 2020 as compared to fiscal year 2019, see Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations in our annual report on Form 10-K for the fiscal year ended January 3, 2021 filed with the Securities and Exchange Commission on March 2, 2021.

Liquidity and Capital Resources

We require cash to pay our operating expenses, make capital expenditures, make strategic acquisitions, service our debt and other long-term liabilities, repurchase shares of our common stock and pay dividends on our common stock. Our principal sources of funds are cash flows from our operations, borrowing capacity available under our senior unsecured credit facility and access to the debt markets. We anticipate that our internal operations will generate sufficient cash to fund our operating expenses, capital expenditures, smaller acquisitions, interest payments on our debt and dividends on our common stock. However, we expect to use external sources to satisfy the balance of our debt when due, any larger acquisitions and other long-term liabilities, such as contributions to our postretirement benefit plans.

We and our subsidiaries and affiliates may from time to time, in our sole discretion, purchase, repay, redeem or retire any of our outstanding debt securities (including any publicly issued debt securities), in privately negotiated or open market transactions, by tender offer or otherwise, or extend or refinance any of our outstanding indebtedness.

Principal factors that could affect the availability of our internally generated funds include:

- changes in sales due to weakness in markets in which we sell our products and services, and
- changes in our working capital requirements.

Principal factors that could affect our ability to obtain cash from external sources include:

- financial covenants contained in the financial instruments controlling our borrowings that limit our total borrowing capacity,
- increases in interest rates applicable to our outstanding variable rate debt,
- a ratings downgrade that could limit the amount we can borrow under our senior unsecured revolving credit facility and our overall access to the corporate debt market,
- increases in interest rates or credit spreads, as well as limitations on the availability of credit, that affect our ability to borrow under future potential facilities on a secured or unsecured basis,
- a decrease in the market price for our common stock, and
- volatility in the public debt and equity markets.

Cash Flows

Fiscal Year 2021 Compared to Fiscal Year 2020

Operating Activities. Net cash provided by continuing operations was $1,410.8 million for fiscal year 2021, as compared to $892.2 million for fiscal year 2020, an increase of $518.6 million. The cash provided by operating activities for fiscal year 2021 was principally a result of income from continuing operations of $943.3 million, adjustments for non-cash charges

aggregating to $363.1 million, including depreciation and amortization of $358.0 million, and a net cash increase in working capital of $104.4 million. During fiscal year 2021, $1.7 million of contingent consideration payments were included in operating activities. During fiscal year 2021, we contributed $6.9 million, in the aggregate, to pension plans outside of the United States, and $20.0 million to our defined benefit pension plan in the United States for the plan year 2019.

Investing Activities. Net cash used in the investing activities of our continuing operations was $4,112.8 million for fiscal year 2021, as compared to $504.5 million for fiscal year 2020, an increase of $3,608.3 million. For fiscal year 2021, we used $3,991.3 million of net cash for acquisitions, as compared to $411.5 million used in fiscal year 2020. Capital expenditures for fiscal year 2021 were $99.9 million, primarily for manufacturing equipment and other capital equipment purchases, as compared to $77.5 million for fiscal year 2020. During fiscal year 2021, we purchased investments amounting to $23.1 million as compared to $20.1 million in fiscal year 2020. These items were partially offset by $1.5 million in proceeds from disposition of businesses and assets in fiscal year 2021, as compared to $4.3 million in fiscal year 2020, and by proceeds from surrender of life insurance policies of $0.1 million in fiscal year 2021, as compared to $0.3 million in fiscal year 2020.

Financing Activities. Net cash provided by the financing activities of our continuing operations was $2,941.7 million for fiscal year 2021, as compared to net cash used in the financing activities of our continuing operations of $202.9 million for fiscal year 2020, an increase of $3,144.5 million in net cash used in financing activities. The cash provided by financing activities during fiscal year 2021 was a result of proceeds from the sale of unsecured senior notes, proceeds from borrowings, proceeds from a term loan and proceeds from the issuance of common stock under stock plans. During fiscal year 2021, proceeds from the sale of unsecured senior notes were $3,086.1 million, our proceeds from debt borrowings totaled $1,400.3 million and proceeds from a term loan were $500.0 million. These were partially offset by payments on borrowings of $1,559.1 million, payments of senior unsecured notes of $339.6 million and debt issuance costs of $31.0 million during fiscal year 2021. This compares to debt borrowings of $714.7 million, which were more than offset by debt payments of $897.7 million during fiscal year 2021. Proceeds from the issuance of common stock under our stock plans were $25.1 million during fiscal year 2021, as compared to $37.7 million for fiscal year 2020. This cash provided by financing activities during fiscal year 2021 was partially offset by repurchases of our common stock, payments of dividends, net payments on other credit facilities settlement of swap and settlement of cash flow hedges. During fiscal year 2021, we repurchased 433,000 shares of common stock under the Repurchase Program and 71,248 shares of our common stock to satisfy minimum statutory tax withholding obligations in connection with the vesting of restricted stock awards and restricted stock unit awards granted pursuant to our equity incentive plans and to satisfy obligations related to the exercise of stock options made pursuant to our equity incentive plans, for a total cost of $73.1 million. This compares to repurchases of 72,251 shares of our common stock pursuant to our equity incentive plans in fiscal year 2020, for a total cost of $6.9 million. During fiscal year 2021, we paid $32.4 million in dividends as compared to $31.2 million for fiscal year 2020. During fiscal year 2021, we paid $14.3 million for settlement of a swap. During fiscal year 2021, we had net payments on other credit facilities of $13.7 million as compared to $4.5 million for fiscal year 2020. We paid $4.5 million in settlement of hedges during fiscal year 2021 as compared to $4.6 million for fiscal year 2020. During fiscal year 2021, we paid $2.2 million for acquisition-related contingent consideration as compared to $10.4 million in fiscal year 2020.

Fiscal Year 2020 Compared to Fiscal Year 2019

For a discussion of our results of operations for fiscal year 2020 as compared to fiscal year 2019, see Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations in our annual report on Form 10-K for the fiscal year ended January 3, 2021 filed with the Securities and Exchange Commission on March 2, 2021.

Borrowing Arrangements

See Note 13, *Debt,* in the Notes to Consolidated Financial Statements for a detailed discussion of our borrowing arrangements.

Dividends

Our Board of Directors (our "Board") declared a regular quarterly cash dividend of $0.07 per share in each quarter of fiscal years 2021 and 2020, resulting in an annual dividend rate of $0.28 per share. At January 2, 2022, we had accrued $8.8 million for a dividend declared in October 2021 for the fourth quarter of fiscal year 2021 that was paid in February 2022. On January 27, 2022, we announced that our Board had declared a quarterly dividend of $0.07 per share for the first quarter of fiscal year 2022 that will be payable in May 2022. In the future, our Board may determine to reduce or eliminate our common stock dividend in order to fund investments for growth, repurchase shares or conserve capital resources.

Capital Expenditures

During fiscal year 2022, we expect to invest an amount for capital expenditures similar to that in fiscal year 2021, primarily to introduce new products, to improve our operating processes, to shift the production capacity to lower cost locations, and to develop information technology. We expect to use our available cash and internally generated funds to fund these expenditures.

Other Potential Liquidity Considerations

At January 2, 2022, we had cash and cash equivalents of $618.3 million, of which $526.3 million was held by our non-U.S. subsidiaries, and we had $1.5 billion of additional borrowing capacity available under a senior unsecured revolving credit facility. We had no other liquid investments at January 2, 2022.

We utilize a variety of tax planning and financing strategies to ensure that our worldwide cash is available in the locations in which it is needed. We use our non-U.S. cash for needs outside of the U.S. including foreign operations, capital investments, acquisitions and repayment of debt. In addition, we also transfer cash to the U.S. using nontaxable returns of capital, distributions of previously taxed income, as well as dividends, where the related income tax cost is managed efficiently.

Prior to enactment of the Tax Cuts and Jobs Act of 2017 (the "Tax Act"), we did not provide deferred income tax expense on the cumulative undistributed earnings of our international subsidiaries. At December 31, 2017, we accrued for a one-time transition tax expense of $85.0 million on our unremitted foreign earnings in accordance with the Tax Act. The U.S. Treasury subsequently issued regulations on the Tax Act and we recorded tax expense (benefit) of $2.7 million and $(4.6) million during fiscal years 2019 and 2018, respectively. We continue to make our scheduled tax payments associated with this one-time transition tax expense accrual.

As of January 2, 2022, we evaluated our undistributed foreign earnings and identified approximately $1.2 billion in earnings that we no longer considered indefinitely reinvested. We intend to begin repatriating such earnings to the U.S., in whole or in part, during fiscal year 2022. In doing so, we have recorded a provision of approximately $37.1 million for the U.S. federal, U.S. state and non-U.S. taxes that would fall due when such earnings are repatriated. No additional income tax expense has been provided for any remaining undistributed foreign earnings, or any additional outside basis difference inherent in these entities, as these amounts continue to be indefinitely reinvested.

On July 31, 2020, our Board authorized us to repurchase shares of common stock for an aggregate amount up to $250.0 million under a stock repurchase program (the "Repurchase Program"). The Repurchase Program will expire on July 27, 2022 unless terminated earlier by our Board and may be suspended or discontinued at any time. During fiscal year 2021, we repurchased 433,000 shares of common stock under the Repurchase Program at an aggregate cost of $62.6 million. As of January 2, 2022, $187.4 million remained available for aggregate repurchases of shares under the Repurchase Program.

In addition, our Board has authorized us to repurchase shares of common stock to satisfy minimum statutory tax withholding obligations in connection with the vesting of restricted stock awards and restricted stock unit awards granted pursuant to our equity incentive plans and to satisfy obligations related to the exercise of stock options made pursuant to our equity incentive plans. During fiscal year 2021, we repurchased 71,248 shares of common stock for this purpose at an aggregate cost of $10.5 million. During fiscal year 2020, we repurchased 72,251 shares of common stock for this purpose at an aggregate cost of $6.9 million.

The repurchased shares have been reflected as additional authorized but unissued shares, with the payments reflected in common stock and capital in excess of par value. Any repurchased shares will be available for use in connection with corporate programs. If we continue to repurchase shares, the Repurchase Program will be funded using our existing financial resources, including cash and cash equivalents, and our existing senior unsecured revolving credit facility.

As of January 2, 2022, we may have to pay contingent consideration, related to acquisitions with open contingency periods, of up to $108.4 million. As of January 2, 2022, we have recorded contingent consideration obligations of $58.0 million, of which $1.3 million was recorded in accrued expenses and other current liabilities, and $56.7 million was recorded in long-term liabilities. The expected maximum earnout period for acquisitions with open contingency periods does not exceed 6.9 years from January 2, 2022, and the remaining weighted average expected earnout period at January 2, 2022 was 5.4 years.

Distressed global financial markets could adversely impact general economic conditions by reducing liquidity and credit availability, creating increased volatility in security prices, widening credit spreads and decreasing valuations of certain investments. The widening of credit spreads may create a less favorable environment for certain of our businesses and may affect the fair value of financial instruments that we issue or hold. Increases in credit spreads, as well as limitations on the

availability of credit at rates we consider to be reasonable, could affect our ability to borrow under future potential facilities on a secured or unsecured basis, which may adversely affect our liquidity and results of operations. In difficult global financial markets, we may be forced to fund our operations at a higher cost, or we may be unable to raise as much funding as we need to support our business activities.

Our pension plans have not experienced a material impact on liquidity or counterparty exposure due to the volatility and uncertainty in the credit markets. With respect to plans outside of the United States, we expect to contribute $7.0 million in the aggregate during fiscal year 2022. During fiscal years 2021 and 2020, we contributed $6.9 million and $7.5 million, in the aggregate, to pension plans outside of the United States, respectively. During fiscal year 2021, we contributed $20.0 million to our defined benefit pension plan in the United States for the plan year 2019. We could potentially have to make additional funding payments in future periods for all pension plans. We expect to use existing cash and external sources to satisfy future contributions to our pension plans.

We are conducting a number of environmental investigations and remedial actions at our current and former locations, and are subject to various claims, legal proceedings and investigations covering a wide range of matters that arise in the ordinary course of our business activities. Although we have established accruals for potential losses that we believe are probable and reasonably estimable, in our opinion, based on our review of the information available at this time, the total cost of resolving these contingencies at January 2, 2022 should not have a material adverse effect on our consolidated financial statements included in this annual report on Form 10-K. However, each of these matters is subject to uncertainties, and it is possible that some of these matters may be resolved unfavorably to us. See "Business—Environmental Matters" above and Note 16, *Contingencies,* in the Notes to Consolidated Financial Statements for a discussion of these matters and proceedings.

Effects of Recently Issued and Adopted Accounting Pronouncements

See Note 1, *Nature of Operations and Accounting Policies,* in the Notes to Consolidated Financial Statements for a summary of recently adopted and issued accounting pronouncements.

Application of Critical Accounting Policies and Estimates

The preparation of consolidated financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenue and expenses, and related disclosure of contingent assets and liabilities. On an ongoing basis, we evaluate our estimates, including those related to accounting for business combinations, long-lived assets, including goodwill and other intangibles and employee compensation and benefits. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

We believe the following critical accounting policies affect our more significant judgments and estimates used in preparation of our consolidated financial statements.

Business combinations. Business combinations are accounted for at fair value. Acquisition costs are expensed as incurred and recorded in selling, general and administrative expenses; restructuring costs associated with a business combination are expensed subsequent to the acquisition date; and changes in deferred tax asset valuation allowances and income tax uncertainties after the acquisition date affect income tax expense. Measurement period adjustments are made in the period in which the amounts are determined and the current period income effect of such adjustments will be calculated as if the adjustments had been completed as of the acquisition date. All changes that do not qualify as measurement period adjustments are also included in current period earnings. The accounting for business combinations requires estimates and judgment as to expectations for future cash flows of the acquired business, and the allocation of those cash flows to identifiable intangible assets, in determining the estimated fair value for assets acquired and liabilities assumed. The fair values assigned to tangible and intangible assets acquired and liabilities assumed, including contingent consideration, are based on management's estimates and assumptions, as well as other information compiled by management, including valuations that utilize customary valuation procedures and techniques. For intangible assets, we normally utilize the "income method" which incorporates the forecast of all the expected future net cash flows attributable to the subject intangible asset, adjusted to present value by applying an appropriate discount rate that reflects the risk factors associated with the cash flow streams. Depending on the asset valued, the key assumptions included one or more of the following: (1) future revenue growth rates, (2) future gross margin, (3) future selling, general and administrative expenses, (4) royalty rates, (5) customer attrition rates, and (6) discount rates. If the actual results differ from the estimates and judgments used in these estimates, the amounts recorded in the financial statements could result in a possible impairment of the intangible assets and goodwill, require acceleration of the amortization expense of finite-lived intangible assets, or the recognition of additional consideration which would be expensed. The fair value of contingent consideration is remeasured each period based on relevant information and changes to the fair value are included in the operating results for the period.

Value of long-lived assets, including goodwill and other intangibles. We carry a variety of long-lived assets on our consolidated balance sheets including property and equipment, operating lease right of use assets, investments, identifiable intangible assets, and goodwill. We periodically review the carrying value of all of these assets based, in part, upon current estimates of fair values and our projections of anticipated future cash flows. We undertake this review (i) on an annual basis for assets such as goodwill and non-amortizing intangible assets and (ii) on a periodic basis for other long-lived assets when facts and circumstances suggest that cash flows related to those assets may be diminished. Any impairment charge that we record reduces our earnings.

For goodwill, the test consists of the comparison of the fair value to the carrying value of the reporting unit to determine if the carrying value exceeds the fair value. If the carrying value of the reporting unit exceeds its fair value, an impairment loss in an amount equal to that excess is recognized up to the amount of goodwill. We perform the annual impairment assessment on the later of January 1 or the first day of each fiscal year. This same impairment test will be performed at other times during the course of the year should an event occur which suggests that the recoverability of goodwill should be reconsidered. We completed the annual goodwill impairment test using a measurement date of January 4, 2021, and concluded that there was no goodwill impairment. At January 4, 2021, the fair value exceeded the carrying value by more than 20.0% for each reporting unit, except for our Tulip reporting unit, which had a fair value that was between 10% and 20% more than its carrying value. The range of the long-term terminal growth rates for the reporting units was 3.0% to 5.0% for the fiscal year 2021 impairment analysis. The range for the discount rates for the reporting units was 8.0% to 12.5%. Keeping all other variables constant, a 10.0% change in any one of these input assumptions for the various reporting units, except for our Tulip reporting unit, would still allow us to conclude that there was no impairment of goodwill. At January 2, 2022, the operating performance of our Tulip reporting unit exceeded the original forecast and the forecast for this reporting unit no longer indicates any sensitivity that would lead to a material impairment charge.

We consistently employ the income approach to estimate the current fair value when testing for impairment of goodwill. A number of significant assumptions and estimates are involved in the application of the income approach to forecast operating cash flows, including markets and market share, sales volumes and prices, costs to produce, tax rates, capital spending, discount rates and working capital changes. Cash flow forecasts are based on approved business unit operating plans for the early years' cash flows and historical relationships in later years. The income approach is sensitive to changes in long-term terminal growth rates and the discount rates. The long-term terminal growth rates are consistent with our historical long-term terminal growth rates, as the current economic trends are not expected to affect our long-term terminal growth rates. We corroborate the income approach with a market approach. While we believe that our estimates of current value are reasonable, if actual results differ from the estimates and judgments used including such items as future cash flows and the volatility inherent in markets which we serve, impairment charges against the carrying value of those assets could be required in the future.

Employee compensation and benefits. We sponsor both funded and unfunded U.S. and non-U.S. defined benefit pension plans and other postretirement benefits. Retirement and postretirement benefit plans are a significant cost of doing business, and represent obligations that will be ultimately settled far in the future, and therefore are subject to estimation. Retirement and postretirement benefit plan expenses are allocated to cost of revenue, research and development, and selling, general and administrative expenses, in our consolidated statements of operations. We immediately recognize actuarial gains and losses in operating results in the year in which the gains and losses occur. Actuarial gains and losses are measured annually as of the calendar month-end that is closest to our fiscal year end and accordingly will be recorded in the fourth quarter, unless we are required to perform an interim remeasurement.

We recognized a gain of $30.9 million in fiscal year 2021 and a loss of $18.0 million in fiscal year 2020, for our retirement and postretirement benefit plans, which include the charge or benefit for the mark-to-market adjustment for the benefit plans, which was recorded in the fourth quarter of each fiscal year. The loss or income related to the mark-to-market adjustment on benefit plans was a pre-tax gain of $24.7 million in fiscal year 2021 and a pre-tax loss of $25.4 million in fiscal year 2020. We expect income of approximately $5.4 million in fiscal year 2022 for our retirement and postretirement benefit plans, excluding the charge for or benefit from the mark-to-market adjustment. It is difficult to reliably calculate and predict whether there will be a mark-to-market adjustment in fiscal year 2022. Mark-to-market adjustments are primarily driven by events and circumstances beyond our control, including changes in interest rates, the performance of the financial markets and mortality assumptions. To the extent the discount rates decrease or the value of our pension and postretirement investments decrease, mark-to market charges to operations will be recorded in fiscal year 2022. Conversely, to the extent the discount rates increase or the value of our pension and postretirement investments increase more than expected, mark-to market income will be recorded in fiscal year 2022. Pension accounting is intended to reflect the recognition of future benefit costs over the employee's approximate service period based on the terms of the plans and the investment and funding decisions made. We are required to make assumptions regarding such variables as the expected long-term rate of return on assets, the discount rate applied and mortality assumptions, to determine service cost and interest cost, in order to arrive at expected pension income or expense for the year. We use discount rates for each individual plan based upon the expected cash flows using the applicable spot rates derived from a yield curve over the projected cash flow period.

If any of our assumptions were to change as of January 2, 2022, our pension plan expenses would also change as follows:

		Increase (Decrease) at January 2, 2022	
	Percentage Point Change	Non-U.S.	U.S.
Pension plans discount rate	+0.25	$ (12,823)	$ (7,442)
	-0.25	13,639	7,773

Item 7A. ***Quantitative and Qualitative Disclosures About Market Risk***

Quantitative and Qualitative Disclosures about Market Risk

Financial Instruments

Financial instruments that potentially subject us to concentrations of credit risk consist principally of temporary cash investments, derivatives, marketable securities and accounts receivable. We believe we had no significant concentrations of credit risk as of January 2, 2022.

We use derivative instruments as part of our risk management strategy only, and includes derivatives utilized as economic hedges that are not designated as hedging instruments. By nature, all financial instruments involve market and credit risks. We enter into derivative instruments with major investment grade financial institutions and have policies to monitor the credit risk of those counterparties. We do not enter into derivative contracts for trading or other speculative purposes, nor do we use leveraged financial instruments.

In the ordinary course of business, we enter into foreign exchange contracts for periods consistent with its committed exposures to mitigate the effect of foreign currency movements on transactions denominated in foreign currencies. The intent of these economic hedges is to offset gains and losses that occur on the underlying exposures from these currencies, with gains and losses resulting from the forward currency contracts that hedge these exposures. Transactions covered by hedge contracts include intercompany and third-party receivables and payables. The contracts are primarily in European and Asian currencies, have maturities that do not exceed 12 months, have no cash requirements until maturity, and are recorded at fair value on our consolidated balance sheets. The unrealized gains and losses on these foreign currency contracts are recognized immediately in interest and other expense, net. The cash flows related to the settlement of these hedges are included in cash flows from operating activities within our consolidated statements of cash flows.

Principal hedged currencies include the Australian Dollar, British Pound, Euro, Indian Rupee, Singapore Dollar and Swedish Krona. We held forward foreign exchange contracts, designated as economic hedges, with U.S. dollar equivalent notional amounts totaling $371.9 million at January 2, 2022, $808.0 million at January 3, 2021, and $277.6 million at December 29, 2019, and the fair value of these foreign currency derivative contracts was insignificant. The gains and losses realized on these foreign currency derivative contracts are not material. The duration of these contracts was generally 30 days or less during each of fiscal years 2021, 2020 and 2019.

In addition, in connection with certain intercompany loan agreements utilized to finance its acquisitions and stock repurchase program, we enters into forward foreign exchange contracts intended to hedge movements in foreign exchange rates prior to settlement of such intercompany loans denominated in foreign currencies. We record these hedges at fair value on our consolidated balance sheets. The unrealized gains and losses on these hedges, as well as the gains and losses associated with the remeasurement of the intercompany loans, are recognized immediately in interest and other expense, net. The cash flows related to the settlement of these hedges are included in cash flows from financing activities within our consolidated statements of cash flows.

The outstanding forward exchange contracts designated as economic hedges, which were intended to hedge movements in foreign exchange rates prior to the settlement of certain intercompany loan agreements, included combined U.S. Dollar notional amounts of $360.2 million as of January 2, 2022, combined Euro notional amounts of €33.4 million and combined U.S. Dollar notional amounts of $499.0 million as of January 3, 2021, and combined Euro notional amounts of €105.8 million and combined U.S. Dollar notional amounts of $5.6 million as of December 29, 2019. The net gains and losses on these derivatives, combined with the gains and losses on the remeasurement of the hedged intercompany loans were not material.

During fiscal year 2018, we designated a portion of the 2026 Notes to hedge its investments in certain foreign subsidiaries. Unrealized translation adjustments from a portion of the 2026 Notes were included in the foreign currency translation component of AOCI, which offsets translation adjustments on the underlying net assets of foreign subsidiaries. The cumulative translation gains or losses will remain in AOCI until the foreign subsidiaries are liquidated or sold. As of January 2,

2022, the total notional amount of the 2026 Notes that was designated to hedge investments in foreign subsidiaries was €497.2 million. The unrealized foreign exchange (gains) losses recorded in AOCI related to the net investment hedge were $(33.2) million, $49.6 million and $4.9 million during the fiscal years 2021, 2020 and 2019, respectively.

During fiscal year 2019, we entered into a cross-currency swap designated as a net investment hedge to hedge the Euro currency exposure of our net investment in certain foreign subsidiaries. This agreement is a contract to exchange fixed-rate payments in one currency for fixed-rate payments in another currency. Changes in the fair value of this swap are recorded in equity as a component of AOCI in the same manner as foreign currency translation adjustments. In assessing the effectiveness of this hedge, we use a method based on changes in spot rates to measure the impact of the foreign currency exchange rate fluctuations on both its foreign subsidiary net investment and the related swap. Under this method, changes in the fair value of the hedging instrument other than those due to changes in the spot rate are initially recorded in AOCI as a translation adjustment, and then are amortized into other (income) expense, net in the consolidated statement of operations using a systematic and rational method over the instrument's term. Changes in the fair value associated with the effective portion (i.e. those changes due to the spot rate) are recorded in AOCI as a translation adjustment and are released and recognized in earnings only upon the sale or liquidation of the hedged net investment. The cross-currency swap had an initial notional value of €197.4 million or $220.0 million and matured on November 15, 2021. Interest on the cross-currency swap was payable semi-annually, in Euro, on May 15th and November 15th of each year based on the Euro notional value and a fixed rate of 2.47%. We received interest in U.S. dollars on May 15th and November 15th of each year based on the U.S. dollar equivalent of the Euro notional value and a fixed rate of 5.00%.

During fiscal year 2020, we entered into forward foreign exchange contracts, designated as cash flow hedges, to hedge the 2021 Notes. The effective portion of the gain or loss of the cash flow hedges were reported as a component of other comprehensive income and reclassified into earnings in the same period during which the hedged transaction affected earnings. During the second quarter of fiscal year 2021, we redeemed all of its outstanding 2021 Notes and settled the forward foreign exchange contracts that were designated as cash flow hedges. The foreign exchange losses (gains) recorded in earnings related to the cash flow hedges were $9.5 million and $(29.3) million during the fiscal years 2021 and 2020, respectively.

During fiscal year 2021, we entered into forward foreign exchange contracts, designated as cash flow hedges, to hedge a portion of the 2026 Notes. The effective portion of the gain or loss of the cash flow hedges will be reported as a component of other comprehensive income and reclassified into earnings in the same period during which the hedged transaction affects earnings. During the fourth quarter of fiscal year 2021, we settled the forward foreign exchange contracts that were designated as cash flow hedges. The foreign exchange loss recorded in earnings related to the cash flow hedges was $8.7 million during fiscal year 2021.

During fiscal year 2021, we entered into two interest rate swaption agreements (together, the "Swaptions") with expiration dates of September 30, 2021 in anticipation of issuing notes to fund the acquisition of BioLegend. The first Swaption had a term of 2 months and hedged an anticipated 10-year note offering, with a notional value of $500.0 million. The second Swaption had a term of 2 months and hedged an anticipated 7-year note offering, with a notional value of $500.0 million. We designated the Swaptions as qualifying hedging instruments and accounted for these derivatives as cash flow hedges. On September 8, 2021, we sold both Swaptions, and as a result, recognized a loss of $8.2 million in interest and other expense, net during the fiscal year 2021. We also recorded other comprehensive income of $3.8 million, which will be amortized to interest and other expense, net over the 7 and 10 year terms, respectively, of the related permanent financing.

We do not expect any material net pre-tax gains or losses to be reclassified from accumulated other comprehensive (loss) income into interest and other expense, net within the next twelve months.

See Note 19, *Derivatives and Hedging Activities,* in the Notes to Consolidated Financial Statements for a detailed discussion of our derivative instruments and hedging activities.

Market Risk

Market Risk. We are exposed to market risk, including changes in interest rates and currency exchange rates. To manage the volatility relating to these exposures, we enter into various derivative transactions pursuant to our policies to hedge against known or forecasted market exposures.

Foreign Exchange Risk. The potential change in foreign currency exchange rates offers a substantial risk to us, as approximately 60% of our business is conducted outside of the United States, generally in foreign currencies. Our risk management strategy currently uses forward contracts to mitigate certain balance sheet foreign currency transaction exposures. The intent of these economic hedges is to offset gains and losses that occur on the underlying exposures, with gains and losses resulting from the forward contracts that hedge these exposures. Moreover, we are able to partially mitigate the impact that fluctuations in currencies have on our net income as a result of our manufacturing facilities located in countries outside the

United States, material sourcing and other spending which occur in countries outside the United States, resulting in natural hedges.

Although we attempt to manage our foreign currency exchange risk through the above activities, when the U.S. dollar weakens against other currencies in which we transact business, sales and net income will in general be positively but not proportionately impacted. Conversely, when the U.S. dollar strengthens against other currencies in which we transact business, sales and net income will in general be negatively but not proportionately impacted.

Foreign Currency Risk—Value-at-Risk Disclosure. We utilize a Value-at-Risk model to determine the potential earning/fair value exposures presented by our foreign currency related financial instruments. As discussed above, we seek to minimize this exposure through our hedging program. Our Value-at-Risk computation is based on the Monte Carlo simulation, utilizing a 95% confidence interval and a holding period of 30 days. As of January 2, 2022, this computation estimated that there is a 5% chance that the market value of the underlying exposures and the corresponding derivative instruments either increase or decrease due to foreign currency fluctuations by more than $31,500. This Value-At-Risk measure is consistent with our financial statement disclosures relative to our foreign currency hedging program. Specifically, during each of the four quarters ended in fiscal year 2021, the Value-At-Risk ranged between $0.1 million and $0.4 million, with an average of approximately $0.3 million.

Interest Rate Risk. As of January 2, 2022, we had $500.0 million in outstanding borrowings under our senior unsecured revolving credit and term loan facilities. Amounts drawn under our senior unsecured revolving credit and term loan facilities bear interest at variable rates; all of our other debt bear interest at fixed rates. Our cash and cash equivalents, for which we receive interest at variable rates, were $618.3 million at January 2, 2022. Fluctuations in interest rates can therefore have a direct impact on both our short-term cash flows, as they relate to interest, and our earnings. To manage the volatility relating to these exposures, we periodically enter into various derivative transactions pursuant to our policies to hedge against known or forecasted interest rate exposures.

Interest Rate Risk—Sensitivity. Our current earnings exposure for changes in interest rates can be summarized as follows:

(i) Changes in interest rates can cause our cash flows to fluctuate. An increase of 10%, or approximately 12 basis points, in current interest rates would cause our cash outflows to increase by $0.6 million for fiscal year 2022.

(ii) Changes in interest rates can cause our interest income and cash flows to fluctuate.

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

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of PerkinElmer, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of PerkinElmer, Inc. and subsidiaries (the “Company”) as of January 2, 2022 and January 3, 2021 and the related consolidated statements of operations, comprehensive income, stockholders’ equity, and cash flows for each of the three years in the period ended January 2, 2022 and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of January 2, 2022 and January 3, 2021, and the results of its operations and its cash flows for each of the three years in the period ended January 2, 2022, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the Company’s internal control over financial reporting as of January 2, 2022, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated March 3, 2022 expressed an unqualified opinion on the Company’s internal control over financial reporting.

Basis for Opinion

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

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

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current-period audit of the financial statements that was communicated or required to be communicated to the audit committee and that (1) relates to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Business Combinations – Identifiable Intangible Assets– Refer to Note 3 to the financial statements

Critical Audit Matter Description

The Company completed the acquisition of BioLegend, Inc. for $5.7 billion in total consideration, net of cash acquired during the third quarter of fiscal year 2021. In addition, the Company completed the acquisition of seven other businesses for aggregate consideration of $1.2 billion during fiscal year 2021. The Company accounted for the acquisitions under the acquisition method of accounting for business combinations. Accordingly, the purchase price was allocated to the assets acquired and liabilities assumed based on their respective fair values, including identifiable intangible assets totaling $2.5 billion in the BioLegend acquisition and $0.5 billion in the other seven acquisitions. Of the identifiable intangible assets acquired, the most significant included core technology of $1.1 billion and customer relationships of $1.9 billion. Management estimated the fair value of these intangible assets using customary valuation procedures and techniques, including income approach methods. The fair value determination of the intangible assets acquired required management to make significant estimates and assumptions related to revenue forecasts and the selection of the discount rates.

We identified the valuation of the intangible assets as a critical audit matter because of the significant estimates and assumptions management made to measure the fair value of the identifiable intangible assets acquired for purposes of the purchase price allocation. These fair value measurements required a high degree of auditor judgment and an increased extent of effort, including the need to involve our fair value specialists, when performing audit procedures to evaluate the reasonableness of management's revenue forecasts and the selection of the discount rates for the identified intangible assets.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the revenue forecasts and the selection of the discount rates for the identifiable intangible assets included the following, among others:

- We tested the effectiveness of controls over the valuation of the identifiable intangible assets, including management's controls over revenue forecasts and selection of the discount rates.
- We assessed the reasonableness of management's revenue forecasts by performing the following, on a sample basis:
  - We compared the revenue forecasts to historical results.
  - We compared the revenue forecasts to internal communications to management and the Board of Directors and other information obtained while performing the audit.
  - We compared the growth rates to similar businesses acquired by the Company, to the Company's legacy operations that operate in a similar business, and to peer companies.
- With the assistance of our fair value specialists, we also performed the following, on a sample basis:
  - We evaluated the reasonableness of the valuation methodologies selected.
  - We tested the source information underlying the determination of the discount rates, tested the mathematical accuracy of the calculations and compared those to the amounts selected by management.

/s / DELOITTE & TOUCHE LLP

Boston, Massachusetts
March 3, 2022

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

CONSOLIDATED STATEMENTS OF OPERATIONS

	January 2, 2022	January 3, 2021	December 29, 2019
	(In thousands, except per share data)		
Revenue			
Product revenue	$ 3,329,102	$ 2,778,725	$ 2,017,042
Service revenue	1,738,067	1,004,020	866,631
Total revenue	5,067,169	3,782,745	2,883,673
Cost of product revenue	1,503,881	1,105,614	956,398
Cost of service revenue	711,988	567,254	531,220
Selling, general and administrative expenses	1,227,521	917,894	815,318
Research and development expenses	274,969	205,389	189,336
Restructuring and other costs, net	16,432	8,013	29,428
Operating income from continuing operations	1,332,378	978,581	361,973
Interest and other expense, net	52,492	72,217	124,831
Income from continuing operations before income taxes	1,279,886	906,364	237,142
Provision for income taxes	336,603	178,266	9,389
Income from continuing operations	943,283	728,098	227,753
Loss on disposition of discontinued operations before income taxes	—	(76)	—
Provision for income taxes on discontinued operations	126	135	195
Loss from discontinued operations and dispositions	(126)	(211)	(195)
Net income	$ 943,157	$ 727,887	$ 227,558
Basic earnings per share:			
Income from continuing operations	$ 8.12	$ 6.53	$ 2.06
Loss from discontinued operations and dispositions	(0.00)	(0.00)	(0.00)
Net income	$ 8.12	$ 6.53	$ 2.06
Diluted earnings per share:			
Income from continuing operations	$ 8.08	$ 6.50	$ 2.04
Loss from discontinued operations and dispositions	(0.00)	(0.00)	(0.00)
Net income	$ 8.08	$ 6.49	$ 2.04

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

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

	January 2, 2022	January 3, 2021	December 29, 2019
		(In thousands)	
Net income	$ 943,157	$ 727,887	$ 227,558
Other comprehensive income (loss)			
Foreign currency translation adjustments, net of tax	(130,873)	169,500	(23,978)
Unrecognized prior service (cost) credit, net of tax	(95)	(1,799)	807
Unrealized gains (losses) on securities, net of tax	237	(16)	6
Other comprehensive income (loss)	(130,731)	167,685	(23,165)
Comprehensive income	$ 812,426	$ 895,572	$ 204,393

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

CONSOLIDATED BALANCE SHEETS

	January 2, 2022	January 3, 2021
	(In thousands, except share and per share data)	
Current assets:		
Cash and cash equivalents	$ 618,319	$ 402,036
Accounts receivable, net	1,023,792	1,155,109
Inventories	624,714	514,567
Other current assets	173,955	167,208
Total current assets	2,440,780	2,238,920
Property, plant and equipment, net	545,605	368,304
Operating lease right-of-use assets	207,775	207,236
Intangible assets, net	4,063,104	1,365,693
Goodwill	7,416,584	3,447,114
Other assets, net	326,706	333,048
Total assets	$ 15,000,554	$ 7,960,315
Current liabilities:		
Current portion of long-term debt	$ 4,240	$ 380,948
Accounts payable	355,458	327,325
Accrued expenses and other current liabilities	854,046	943,916
Total current liabilities	1,213,744	1,652,189
Long-term debt	4,979,737	1,609,701
Deferred taxes and other long-term liabilities	1,480,469	774,531
Operating lease liabilities	185,359	188,402
Total liabilities	7,859,309	4,224,823
Commitments and contingencies (see Notes 13 and 16)		
Stockholders' equity:		
Preferred stock—$1 par value per share, authorized 1,000,000 shares; none issued or outstanding	—	—
Common stock—$1 par value per share, authorized 300,000,000 shares; issued and outstanding 126,241,000 and 112,090,000 shares at January 2, 2022 and January 3, 2021, respectively	126,241	112,090
Capital in excess of par value	2,760,522	148,101
Retained earnings	4,417,174	3,507,262
Accumulated other comprehensive loss	(162,692)	(31,961)
Total stockholders' equity	7,141,245	3,735,492
Total liabilities and stockholders' equity	$ 15,000,554	$ 7,960,315

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

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

	Common Stock Amount	Capital in Excess of Par Value	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Total Stockholders' Equity
			(In thousands)		
Balance, December 30, 2018	$ 110,597	$ 48,772	$ 2,602,067	$ (176,481)	$ 2,584,955
Impact of adopting ASC 842	—	—	13,289	—	13,289
Net income	—	—	227,558	—	227,558
Other comprehensive loss	—	—	—	(23,165)	(23,165)
Dividends	—	—	(30,941)	—	(30,941)
Exercise of employee stock options and related income tax benefits	415	19,317	—	—	19,732
Issuance of common stock for employee stock purchase plans	33	2,743	—	—	2,776
Purchases of common stock	(67)	(6,246)	—	—	(6,313)
Issuance of common stock for long-term incentive program	162	19,145	—	—	19,307
Stock-based compensation	—	6,626	—	—	6,626
Balance, December 29, 2019	$ 111,140	$ 90,357	$ 2,811,973	$ (199,646)	$ 2,813,824
Impact of adopting ASU 2016-13	—	—	(1,328)	—	(1,328)
Net income	—	—	727,887	—	727,887
Other comprehensive income	—	—	—	167,685	167,685
Dividends	—	—	(31,270)	—	(31,270)
Exercise of employee stock options and related income tax benefits	764	36,907	—	—	37,671
Issuance of common stock for employee stock purchase plans	39	4,062	—	—	4,101
Purchases of common stock	(72)	(6,872)	—	—	(6,944)
Issuance of common stock for long-term incentive program	219	19,985	—	—	20,204
Stock-based compensation	—	3,662	—	—	3,662
Balance, January 3, 2021	$ 112,090	$ 148,101	$ 3,507,262	$ (31,961)	$ 3,735,492
Net income	—	—	943,157	—	943,157
Other comprehensive loss	—	—	—	(130,731)	(130,731)
Dividends	—	—	(33,245)	—	(33,245)
Issuance of common stock for business combination, net of issuance costs	14,067	2,624,077	—	—	2,638,144
Exercise of employee stock options and related income tax benefits	358	24,762	—	—	25,120
Issuance of common stock for employee stock purchase plans	21	3,607	—	—	3,628
Purchases of common stock	(504)	(72,568)	—	—	(73,072)
Issuance of common stock for long-term incentive program	209	26,292	—	—	26,501
Stock-based compensation	—	6,251	—	—	6,251
Balance, January 2, 2022	$ 126,241	$ 2,760,522	$ 4,417,174	$ (162,692)	$ 7,141,245

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

CONSOLIDATED STATEMENTS OF CASH FLOWS

For the Fiscal Years Ended

	January 2, 2022	January 3, 2021	December 29, 2019
		(In thousands)	
Operating activities:			
Net income	$ 943,157	$ 727,887	$ 227,558
Loss from discontinued operations and dispositions	126	211	195
Income from continuing operations	943,283	728,098	227,753
Adjustments to reconcile income from continuing operations to net cash provided by continuing operations:			
Restructuring and other costs, net	16,432	8,013	29,428
Depreciation and amortization	358,004	246,507	214,025
Stock-based compensation	32,780	29,126	31,514
Pension and other post-retirement expense	(30,891)	18,012	26,107
Change in fair value of contingent consideration	3,119	(8,827)	3,881
Deferred taxes	(49,342)	(29,121)	(61,353)
Contingencies and non-cash tax matters	1,924	4,518	(424)
Amortization of deferred debt issuance costs and accretion of discounts	4,962	3,391	3,846
(Gain) loss on disposition of businesses and assets, net	(1,970)	886	2,469
Amortization of acquired inventory revaluation	35,201	2,793	21,590
Asset impairment	3,868	7,937	—
Change in fair value of financial securities	(10,985)	(35)	(3,249)
Debt extinguishment costs	—	—	32,541
Changes in assets and liabilities which provided (used) cash, excluding effects from companies acquired:			
Accounts receivable, net	155,391	(373,895)	(100,630)
Inventories	2,376	(122,513)	(9,607)
Accounts payable	823	62,753	7,351
Accrued expenses and other	(54,225)	314,534	(61,773)
Net cash provided by operating activities of continuing operations	1,410,750	892,177	363,469
Investing activities:			
Capital expenditures	(99,888)	(77,506)	(76,331)
Purchases of investments	(23,130)	(20,059)	(6,387)
Purchases of licenses	—	—	(5,000)
Proceeds from disposition of businesses and assets	1,460	4,280	550
Proceeds from surrender of life insurance policies	109	282	—
Cash paid for acquisitions, net of cash, cash equivalents and restricted cash acquired	(3,991,309)	(411,495)	(400,405)
Net cash used in investing activities of continuing operations	(4,112,758)	(504,498)	(487,573)
Financing activities:			
Payments on borrowings	(1,559,133)	(897,674)	(1,692,489)
Proceeds from borrowings	1,400,282	714,698	1,599,416
Proceeds from term loan	500,000	—	—
Payments of senior unsecured notes	(339,605)	—	(530,276)
Proceeds from sale of senior unsecured notes	3,086,095	—	847,195
Payments of debt financing and equity issuance costs	(30,983)	—	(9,879)

	January 2, 2022	January 3, 2021	December 29, 2019
		(In thousands)	
Net payments on other credit facilities	(13,670)	(4,494)	(14,975)
Settlement of cash flow hedges	(4,482)	(4,554)	(1,280)
Settlement of swaps	(14,314)	—	—
Payments for acquisition-related contingent consideration	(2,208)	(10,363)	(29,942)
Proceeds from issuance of common stock under stock plans	25,120	37,671	19,732
Purchases of common stock	(73,072)	(6,944)	(6,313)
Dividends paid	(32,373)	(31,212)	(31,059)
Net cash provided by (used in) financing activities of continuing operations	2,941,657	(202,872)	150,130
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(22,926)	25,913	(447)
Net increase in cash, cash equivalents and restricted cash	216,723	210,720	25,579
Cash, cash equivalents and restricted cash at beginning of year	402,614	191,894	166,315
Cash, cash equivalents and restricted cash at end of year	$ 619,337	$ 402,614	$ 191,894
Supplemental disclosures of cash flow information			
Reconciliation of cash, cash equivalents and restricted cash reported within the consolidated balance sheets that sum to the total shown in the consolidated statements of cash flows:			
Cash and cash equivalents	$ 618,319	$ 402,036	$ 191,877
Restricted cash included in other current assets	1,018	578	17
Total cash, cash equivalents and restricted cash shown in the consolidated statements of cash flows	$ 619,337	$ 402,614	$ 191,894
Cash paid during the year for:			
Interest	$ 54,120	$ 42,142	$ 82,693
Income taxes	$ 364,565	$ 162,454	$ 77,059
Supplemental disclosures of non-cash investing and financing activities:			
Equity issued for business combination, net of issuance costs	$ 2,638,144	$ —	$ —

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

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1: Nature of Operations and Accounting Policies

Nature of Operations: PerkinElmer, Inc. is a leading provider of products, services and solutions to the diagnostics, life sciences and applied markets. Through its advanced technologies and differentiated solutions, critical issues are addressed that help to improve lives and the world around us.

The consolidated financial statements include the accounts of PerkinElmer, Inc. and its subsidiaries (the "Company"). All intercompany balances and transactions have been eliminated in consolidation.

The Company has two operating segments: Discovery & Analytical Solutions and Diagnostics. The Company's Discovery & Analytical Solutions segment focuses on service and innovating for customers spanning the life sciences and applied markets. The Company's Diagnostics segment is targeted towards meeting the needs of clinically-oriented customers, especially within the growing areas of reproductive health, emerging market diagnostics and applied genomics.

The Company's fiscal year ends on the Sunday nearest December 31. The Company reports fiscal years under a 52/53 week format and as a result, certain fiscal years will contain 53 weeks. Each of the fiscal years ended January 2, 2022 ("fiscal year 2021") and December 29, 2019 ("fiscal year 2019") included 52 weeks. The fiscal year ended January 3, 2021 ("fiscal year 2020") included 53 weeks. The fiscal year ending January 1, 2023 ("fiscal year 2022") will include 52 weeks.

Accounting Policies and Estimates: The preparation of consolidated financial statements in accordance with United States ("U.S.") Generally Accepted Accounting Principles ("GAAP") requires the Company to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities. On an ongoing basis, the Company evaluates its estimates. The Company bases its estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates.

Revenue Recognition: The Company enters into contracts that can include various combinations of products and services, which are generally capable of being distinct and accounted for as separate performance obligations. The Company recognizes revenue in an amount that reflects the consideration the Company expects to receive in exchange for the promised products or services when a performance obligation is satisfied by transferring control of those products or services to customers.

Taxes that are collected by the Company from a customer and assessed by a governmental authority, that are both imposed on and concurrent with a specific revenue-producing transaction, are excluded from revenue.

The Company reports shipping and handling revenue in revenue, to the extent it is billed to customers, and the associated costs in cost of product revenue.

Warranty Costs: The Company provides for estimated warranty costs for products at the time of their sale. Warranty liabilities are estimated using expected future repair costs based on historical labor and material costs incurred during the warranty period. Warranty costs were not material in the periods presented.

Inventories: Inventories, which include material, labor and manufacturing overhead, are valued at the lower of cost or market. Inventories are accounted for using the first-in, first-out method of determining inventory costs. Inventory quantities on-hand are regularly reviewed, and where necessary, provisions for excess and obsolete inventory are recorded based primarily on the Company's estimated forecast of product demand and production requirements.

Income Taxes: The Company uses the asset and liability method of accounting for income taxes. Under the asset and liability method, deferred tax assets and liabilities are recognized for the estimated future tax consequences attributable to differences between the financial statement carrying amounts of assets and liabilities and their respective tax bases. This method also requires the recognition of future tax benefits such as net operating loss carryforwards, to the extent that realization of such benefits is more likely than not. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the fiscal years in which those temporary differences are expected to be recovered or settled. A valuation allowance is established for any deferred tax asset for which realization is not more likely than not.

The Company provides reserves for potential payments of tax to various tax authorities related to uncertain tax positions and other issues. These reserves are based on a determination of whether and how much of a tax benefit taken by the Company in its tax filings or positions is more likely than not to be realized following resolution of any potential contingencies present

related to the tax benefit. Potential interest and penalties associated with such uncertain tax positions is recorded as a component of income tax expense.

Property, Plant and Equipment: The Company depreciates property, plant and equipment using the straight-line method over its estimated useful lives, which generally fall within the following ranges: buildings- 10 to 40 years; leasehold improvements - estimated useful life or remaining term of lease, whichever is shorter; and machinery and equipment- 3 to 8 years. Certain tooling costs are capitalized and amortized over a 3-year life, while repairs and maintenance costs are expensed.

Pension and Other Postretirement Benefits: The Company sponsors both funded and unfunded U.S. and non-U.S. defined benefit pension plans and other postretirement benefits. The Company immediately recognizes actuarial gains and losses in operating results in the year in which the gains and losses occur. Actuarial gains and losses are measured annually as of the calendar month-end that is closest to the Company's fiscal year end and accordingly will be recorded in the fourth quarter, unless the Company is required to perform an interim remeasurement. The remaining components of pension expense, primarily service and interest costs and assumed return on plan assets, are recorded on a quarterly basis. The Company's funding policy provides that payments to the U.S. pension trusts shall at least be equal to the minimum funding requirements of the Employee Retirement Income Security Act of 1974. Non-U.S. plans are accrued for, but generally not fully funded, and benefits are paid from operating funds.

Translation of Foreign Currencies: For foreign operations, asset and liability accounts are translated at current exchange rates; income and expenses are translated using weighted average exchange rates for the reporting period. Resulting translation adjustments, as well as translation gains and losses from certain intercompany transactions considered permanent in nature, are reported in accumulated other comprehensive income ("AOCI"), a separate component of stockholders' equity. Gains and losses arising from transactions and translation of period-end balances denominated in currencies other than the functional currency are included in other expense, net.

Business Combinations: Business combinations are accounted for at fair value. Acquisition costs are expensed as incurred and recorded in selling, general and administrative expenses. Measurement period adjustments are made in the period in which the amounts are determined and the current period income effect of such adjustments will be calculated as if the adjustments had been completed as of the acquisition date. All changes that do not qualify as measurement period adjustments are also included in current period earnings. The accounting for business combinations requires estimates and judgment as to expectations for future cash flows of the acquired business, and the allocation of those cash flows to identifiable intangible assets, in determining the estimated fair value for assets acquired and liabilities assumed. The fair values assigned to tangible and intangible assets acquired and liabilities assumed, including contingent consideration, are based on management's estimates and assumptions, as well as other information compiled by management, including valuations that utilize customary valuation procedures and techniques. If the actual results differ from the estimates and judgments used in these estimates, the amounts recorded in the financial statements could result in a possible impairment of the intangible assets and goodwill, require acceleration of the amortization expense of finite-lived intangible assets, or the recognition of additional consideration which would be expensed.

Goodwill and Other Intangible Assets: The Company's intangible assets consist of (i) goodwill, which is not being amortized; (ii) indefinite lived intangibles, which consist of a trade name that is not subject to amortization; and (iii) amortizing intangibles, which consist of patents, trade names and trademarks, licenses, customer relationships and purchased technologies, which are being amortized over their estimated useful lives.

The process of testing goodwill for impairment involves the determination of the fair value of the applicable reporting units. The test consists of the comparison of the fair value to the carrying value of the reporting unit to determine if the carrying value exceeds the fair value. If the carrying value of the reporting unit exceeds its fair value, an impairment loss in an amount equal to that excess is recognized up to the amount of goodwill. This annual impairment assessment is performed by the Company on the later of January 1 or the first day of each fiscal year. Indefinite-lived intangibles are also subject to an annual impairment test. The impairment test consists of a comparison of the fair value of the indefinite-lived intangible asset with its carrying amount. If the carrying amount of an indefinite-lived intangible asset exceeds its fair value, an impairment loss in an amount equal to that excess is recognized up to the amount of the amortizing intangible asset. Amortizing intangible assets are reviewed for impairment when indicators of impairment are present. When a potential impairment has been identified, forecasted undiscounted net cash flows of the operations to which the asset relates are compared to the current carrying value of the long-lived assets present in that operation. If such cash flows are less than such carrying amounts, long-lived assets, including such intangibles, are written down to their respective fair values.

Stock-Based Compensation: The Company accounts for stock-based compensation expense based on estimated grant date fair value, generally using the Black-Scholes option-pricing model. The fair value is recognized as expense in the consolidated financial statements over the requisite service period. The determination of fair value and the timing of expense using option

pricing models such as the Black-Scholes model require the input of subjective assumptions, including the expected term and the expected price volatility of the underlying stock. The Company estimates the expected term assumption based on historical experience. In determining the Company's expected stock price volatility assumption, the Company reviews both the historical and implied volatility of the Company's common stock.

Marketable Securities and Investments: Investments in debt securities that are classified as available for sale are recorded at fair value with unrealized gains and losses included in accumulated other comprehensive (loss) income until realized. Investments in equity securities are recorded at their fair values with unrealized holding gains and losses included in earnings. Investments in equity securities without a readily determinable fair value are carried at cost minus impairment, if any. When an observable price change in orderly transactions for the identical or a similar investment of the same issuer has occurred, the Company elects to carry those equity investments at fair value as of the date that the observable transaction occurred.

Cash and Cash Equivalents: The Company considers all highly liquid, unrestricted instruments with a purchased maturity of three months or less to be cash equivalents. The carrying amount of cash equivalents approximates fair value due to the short maturities of these instruments.

Environmental Matters: The Company accrues for costs associated with the remediation of environmental pollution when it is probable that a liability has been incurred and the Company's proportionate share of the amount can be reasonably estimated. The recorded liabilities have not been discounted.

Research and Development: Research and development costs are expensed as incurred. In-process research and development ("IPR&D") costs acquired in a business combination are recorded at fair value as an intangible asset at the acquisition date and amortized once the product is ready for sale or expensed if abandoned.

Restructuring and Other Costs: Generally, costs associated with an exit or disposal activity are recognized when the liability is incurred. Prior to recording restructuring charges for employee separation agreements, the Company notifies all employees of termination. Costs related to employee separation arrangements requiring future service beyond a specified minimum retention period are recognized over the service period.

Comprehensive Income: Comprehensive income is defined as net income or loss and other changes in stockholders' equity from transactions and other events from sources other than stockholders. Comprehensive income is reflected in the consolidated statements of comprehensive income.

Derivative Instruments and Hedging: Derivatives are recorded on the consolidated balance sheets at fair value. Accounting for gains or losses resulting from changes in the values of those derivatives depends on the use of the derivative instrument and whether it qualifies for hedge accounting.

For a cash flow hedge, the effective portion of the derivative's gain or loss is initially reported as a component of other comprehensive income and subsequently amortized into net earnings when the hedged exposure affects net earnings. Cash flow hedges related to anticipated transactions are designated and documented at the inception of each hedge by matching the terms of the contract to the underlying transaction. The Company classifies the cash flows from hedging transactions in the same categories as the cash flows from the respective hedged items. Once established, cash flow hedges are generally recorded in other comprehensive income, unless an anticipated transaction is no longer likely to occur, and subsequently amortized into net earnings when the hedged exposure affects net earnings. Discontinued or dedesignated cash flow hedges are immediately settled with counterparties, and the related accumulated derivative gains or losses are recognized into net earnings on the consolidated financial statements. Settled cash flow hedges related to forecasted transactions that remain probable are recorded as a component of other comprehensive (loss) income and are subsequently amortized into net earnings when the hedged exposure affects net earnings. Forward contract effectiveness for cash flow hedges is calculated by comparing the fair value of the contract to the change in value of the anticipated transaction using forward rates on a monthly basis. The Company also has entered into other foreign currency forward contracts that are not designated as hedging instruments for accounting purposes. These contracts are recorded at fair value, with the changes in fair value recognized into interest and other expense, net on the consolidated financial statements.

The Company also uses foreign currency denominated debt to hedge its investments in certain foreign subsidiaries. Realized and unrealized translation adjustments from these hedges are included in the foreign currency translation component of AOCI, as well as the offset translation adjustments on the underlying net assets of foreign subsidiaries. The cumulative translation gains or losses will remain in AOCI until the foreign subsidiaries are liquidated or sold.

Leases: Operating leases are included in operating lease right-of-use ("ROU") assets, other current liabilities, and operating lease liabilities in the Company's consolidated balance sheet. ROU assets represent the Company's right to use an underlying asset for the lease term and lease liabilities represent the Company's obligation to make lease payments arising from

the lease. Operating lease ROU assets and liabilities were recognized based on the present value of the remaining lease payments over the lease term. When the Company's lease did not provide an implicit rate, the Company used its incremental borrowing rate in determining the present value of lease payments. The Company used the implicit rate when readily determinable. The operating lease ROU asset excludes lease incentives. The lease terms may include options to extend or terminate the lease when it is reasonably certain that the Company will exercise that option. Lease expense for lease payments is recognized on a straight-line basis over the lease term.

The Company has lease agreements with lease and non-lease components, which are generally accounted for separately. For certain equipment leases, such as cars, the Company accounts for the lease and non-lease components as a single lease component. Additionally, for certain equipment leases, the Company applies a portfolio approach to effectively account for the operating lease ROU assets and liabilities.

The Company has made an accounting policy election not to recognize ROU assets and lease liabilities that arise from short-term leases for facilities and equipment. Instead, the Company recognizes the lease payments in the consolidated statements of operations on a straight-line basis over the lease term and variable lease payments in the period in which the obligation for those payments is incurred.

As a lessor, the Company applies the practical expedient to not separate non-lease components from the associated lease component and instead accounts for those components as a single component if the non-lease components otherwise would be accounted for under ASC 606, *Revenue From Contracts With Customers* (“ASC 606”), and both of the following criteria are met: 1) the timing and pattern of transfer of the non-lease component or components and associated lease component are the same; and 2) the lease component, if accounted for separately, would be classified as an operating lease. If the non-lease component or components associated with the lease component are the predominant component of the combined component, the Company accounts for the combined component in accordance with ASC 606. Otherwise, the Company accounts for the combined component as an operating lease in accordance with ASC 842.

Recently Issued Accounting Pronouncements: From time to time, new accounting pronouncements are issued by the Financial Accounting Standards Board (the "FASB") and are adopted by the Company as of the specified effective dates. Unless otherwise discussed, such pronouncements did not have or will not have a significant impact on the Company’s consolidated financial position, results of operations and cash flows or do not apply to the Company’s operations.

In December 2019, the FASB issued Accounting Standards Update No. 2019-12, *Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes* ("ASU 2019-12"). ASU 2019-12 eliminates certain exceptions and adds guidance to reduce complexity in accounting for income taxes. Specifically, this guidance: (1) removes the intraperiod tax allocation exception to the incremental approach; (2) removes the ownership changes in investments exception in determining when a deferred tax liability is recognized after an investor in a foreign entity transitions to or from the equity method of accounting and applies this provision on a modified retrospective basis through a cumulative-effect adjustment to retained earnings at the beginning of the period of adoption; and (3) removes the exception to using the general methodology for calculating income taxes in an interim period when a year-to-date loss exceeds the anticipated loss for the year. ASU 2019-12 also simplifies accounting principles by making other changes, including requiring an entity to: (1) evaluate whether a step-up in tax basis of goodwill relates to a business combination or a separate transaction; (2) make a policy election to not allocate consolidated income taxes when a member of a consolidated tax return is not subject to income tax and to apply this provision retrospectively to all periods presented; and (3) recognize a franchise tax (or similar tax) that is partially based on income as an income-based tax and apply this provision either retrospectively for all periods presented or on a modified retrospective basis through a cumulative-effect adjustment to retained earnings as of the beginning of the period of adoption. The provisions of this guidance (except as specifically mentioned above) are to be applied prospectively upon their effective date. The Company adopted the guidance beginning on January 4, 2021. The adoption did not have a material impact on the Company's consolidated financial position, results of operations and cash flows.

Note 2: Revenue

For arrangements with multiple performance obligations, the Company accounts for individual products and services separately if they are distinct - i.e. if a product or service is separately identifiable from other items in the bundled package and if a customer can benefit from it on its own or with other resources that are readily available to the customer. The consideration (including any discounts) is allocated between separate products and services in a bundle based on their stand-alone selling prices. The stand-alone selling prices are determined based on the prices at which the Company separately sells the products, extended warranties, and services. For items that are not sold separately, the Company estimates stand-alone selling prices by reference to the amount charged for similar items on a stand-alone basis.

The Company sells products and services predominantly through its direct sales force. As a result, the use of distributors is generally limited to geographic regions where the Company has no direct sales force. The Company does not offer product return or exchange rights (other than those relating to defective goods under warranty) or price protection allowances to its customers, including distributors. Payment terms granted to distributors are the same as those granted to end-customers and payments are not dependent upon the distributor's receipt of payment from their end-user customers.

In instances where the timing of revenue recognition differs from the timing of invoicing, the Company determined that the contracts generally do not include a significant financing component. The primary purpose of its invoicing terms is to provide customers with simplified and predictable ways of purchasing products and services, rather than to receive financing from the customers or to provide customers with financing. Examples include invoicing at the beginning of a subscription term with revenue recognized ratably over the contract period, and multi-year software licenses or software subscriptions that are invoiced annually with revenue recognized upfront. In limited circumstances where the Company provides the customer with a significant benefit of financing, the Company uses the practical expedient and only adjusts the transaction price for the effects of the time value of money and only on contracts where the duration of financing is more than one year.

Nature of goods and services

The Discovery & Analytical Solutions segment of the Company principally generates revenue from sales of (a) instruments, consumables and services in the applied markets and (b) instruments, reagents, informatics, software, subscriptions, detection and imaging technologies, extended warranties, training and services in the life sciences market. The Diagnostics segment of the Company principally generates revenue from sales of instruments, solutions, consumables, reagents, extended warranties and services in the diagnostics market. Products and services may be sold separately or in bundled packages. The typical length of a contract for service is 12 to 36 months.

The revenue generated from the sale of instruments, consumables, reagents, and certain software is recognized at a point in time. The Company recognizes revenue in these arrangements at the point in time when control of the products has been transferred to customers, which is typically at delivery. Certain of the Company's products require specialized installation and configuration at the customer's site. Revenue for these products is deferred until installation is complete and customer acceptance has been received. When the Company places the instrument at the customer's site and sells the reagents to a customer, the instrument and reagents are accounted for together as one performance obligation. The Company does not charge a fee for the use of the instrument and retains ownership of the placed instrument. The Company has a right to remove the instrument and replace it with another instrument at the customer's site at any time throughout the contract term. The Company recognizes revenue upon delivery of reagents, which is the point in time where the Company has performed its obligation to provide a screening solution to the customer. Payment terms and conditions vary, although terms generally include a requirement of payment within 30 to 60 days.

The revenue generated from the sale of licenses for software as a service, cloud services, subscriptions, extended warranties, and laboratory services and training is recognized over time. Term licenses, subscriptions and cloud services, are generally recognized ratably over the contract period or based upon consumption. The Company sells its software subscriptions and cloud services with maintenance services and, in some cases, with consulting services. The Company recognizes revenue for the software commencing when the service is made available to the customer. For maintenance and consulting services, revenue is recognized ratably over the period in which the services are provided. Revenue for laboratory services is recognized over the contract period or at a point in time when the service is billable, based on time and materials. Payment terms and conditions vary, although terms generally include a requirement of payment within 30 to 60 days.

Disaggregation of revenue

In the following tables, revenue is disaggregated by primary geographical market, end-markets and timing of revenue recognition.

	Reportable Segments								
	For the fiscal year ended								
	January 2, 2022			January 3, 2021			December 29, 2019		
	Discovery & Analytical Solutions	Diagnostics	Total	Discovery & Analytical Solutions	Diagnostics	Total	Discovery & Analytical Solutions	Diagnostics	Total
	(In thousands)								
Primary geographical markets									
Americas	$ 876,367	$ 1,362,213	$2,238,580	$ 695,960	$ 750,641	$1,446,601	$ 717,205	$ 401,591	$1,118,796
Europe	599,886	982,476	1,582,362	490,789	864,687	1,355,476	495,768	291,610	$ 787,378
Asia	658,977	587,250	1,246,227	529,054	451,614	980,668	533,188	444,311	$ 977,499
	$ 2,135,230	$ 2,931,939	$5,067,169	$ 1,715,803	$ 2,066,942	$3,782,745	$1,746,161	$ 1,137,512	$2,883,673
Primary end-markets									
Diagnostics	$ —	$ 2,931,939	$2,931,939	$ —	$ 2,066,942	$2,066,942	$ —	$ 1,137,512	$1,137,512
Life sciences	1,337,340	—	1,337,340	1,032,209	—	1,032,209	977,200	—	$ 977,200
Applied markets	797,890	—	797,890	683,594	—	683,594	768,961	—	$ 768,961
	$ 2,135,230	$ 2,931,939	$5,067,169	$ 1,715,803	$ 2,066,942	$3,782,745	$1,746,161	$ 1,137,512	$2,883,673
Timing of revenue recognition									
Products and services transferred at a point in time	$ 1,595,245	$ 2,285,836	$3,881,081	$ 1,195,249	$ 1,891,482	$3,086,731	$1,276,499	$ 1,053,974	$2,330,473
Services transferred over time	539,985	646,103	1,186,088	520,554	175,460	696,014	469,662	83,538	553,200
	$ 2,135,230	$ 2,931,939	$5,067,169	$ 1,715,803	$ 2,066,942	$3,782,745	$1,746,161	$ 1,137,512	$2,883,673

Major Customer Concentration

Revenues from one customer in the Company's Diagnostics segment represent approximately $638.6 million, $97.8 million and $30.8 million of the Company's total revenue during the fiscal years 2021, 2020 and 2019, respectively.

Contract Balances

Contract assets: The unbilled receivables (contract assets) primarily relate to the Company's right to consideration for work completed but not billed at the reporting date. The unbilled receivables are transferred to trade receivables when billed to customers. Contract assets are generally classified as current assets and are included in "Accounts receivable, net" in the consolidated balance sheets.

	(In thousands)
Balance at December 29, 2019	$ 37,036
Transferred to trade receivables from unbilled receivables recognized at the beginning of the period	(33,236)
Increases as a result of recognition of revenue before billing to customers, excluding amounts transferred to trade receivables during the period	55,674
Balance at January 3, 2021	59,474
Transferred to trade receivables from unbilled receivables recognized at the beginning of the period	(51,969)
Increases as a result of recognition of revenue before billing to customers, excluding amounts transferred to trade receivables during the period	64,612
Balance at January 2, 2022	$ 72,117

Contract liabilities: The contract liabilities primarily relate to the advance consideration received from customers for products and related installation for which transfer of control has not occurred at the balance sheet date. Contract liabilities are classified as either current in "Accounts payable" or "Accrued expenses and other current liabilities" or as long-term in "Long-term liabilities" in the consolidated balance sheets based on the timing of when the Company expects to recognize revenue.

	(In thousands)
Balance at December 29, 2019	$ 29,944
Revenue recognized that was included in the contract liability balance at the beginning of the period	(27,328)
Increases due to cash received, excluding amounts recognized as revenue during the period	235,499
Balance at January 3, 2021	238,115
Revenue recognized that was included in the contract liability balance at the beginning of the period	(99,997)
Increases due to cash received, excluding amounts recognized as revenue during the period	62,955
Balance at January 2, 2022	$ 201,073

Contract costs: The Company recognizes the incremental costs of obtaining a contract with a customer as an asset if it expects the benefit of those costs to be longer than one year. The Company determined that certain sales incentive programs meet the requirements to be capitalized. Total capitalized costs to obtain a contract were immaterial during the period and are included in other current and long-term assets on the consolidated balance sheets. The Company applies a practical expedient to expense costs as incurred for costs to obtain a contract with a customer when the amortization period would have been one year or less.

Transaction price allocated to the remaining performance obligations

The Company applies the practical expedient in ASC 606-10-50-14 and does not disclose information about remaining performance obligations that have original expected durations of one year or less. The estimated revenue expected to be recognized beyond one year in the future related to performance obligations that are unsatisfied (or partially unsatisfied) at the end of the period are not material to the Company. The remaining performance obligations primarily include noncancelable purchase orders and noncancelable software subscriptions and cloud service contracts.

Note 3: Business Combinations

Acquisitions in fiscal year 2021

Acquisition of BioLegend, Inc. In fiscal year 2021, the Company completed the acquisition of BioLegend, Inc. ("BioLegend") and paid an aggregate consideration of $5.7 billion, net of cash acquired of $292.4 million, reflecting working capital and other adjustments (the "Aggregate Consideration"). The Aggregate Consideration was paid in a combination of $3.3 billion in cash and shares of the Company's common stock having a fair value of approximately $2.6 billion based on the $187.56 per share closing price of the Company's common stock on the New York Stock Exchange on September 17, 2021 (the "Stock Consideration"). The Stock Consideration consisted of 14,066,799 shares of the Company's common stock. BioLegend is recognized as a leading, global provider of life science antibodies and reagents headquartered in San Diego, California, with approximately 700 employees. The operations for this acquisition is reported within the results of the Company's Discovery & Analytical Solutions segment from the acquisition date. The excess of the purchase price over the fair value of the acquired net assets represents cost and revenue synergies specific to the Company, as well as non-capitalizable intangible assets, such as the employee workforce acquired, and is not tax deductible. Identifiable definite-lived intangible assets, such as core technology, trade names, customer relationships and clone library, acquired as part of this acquisition had a weighted-average amortization period of 16.3 years.

BioLegend's revenue and net loss for the period from the acquisition date to January 2, 2022 were $91.7 million and $25.8 million, respectively. The net loss includes $47.0 million of amortization of acquired intangible assets. The following unaudited pro forma information presents the combined financial results for the Company and BioLegend as if the acquisition of BioLegend had been completed at the beginning of fiscal year 2020:

	January 2, 2022	January 3, 2021
	(In thousands, except per share data)	
Pro Forma Statements of Operations Information:		
Revenue	$ 5,295,483	$ 4,024,631
Income from continuing operations	1,001,109	551,572
Basic earnings per share:		
Income from continuing operations	$ 7.69	$ 4.39
Diluted earnings per share:		
Income from continuing operations	$ 7.66	$ 4.37

The unaudited pro forma information for fiscal years 2021 and 2020 have been calculated after applying the Company's accounting policies and the impact of acquisition date fair value adjustments. The fiscal year 2021 unaudited pro forma income from continuing operations was adjusted to exclude approximately $43.2 million of acquisition-related transaction costs and $23.3 million of costs of bridge financing and debt pre-issuance hedges that were recognized in expense during the year. The fiscal year 2020 pro forma income from continuing operations was adjusted to include these acquisition-related transaction costs and the nonrecurring expenses related to the bridge financing and debt pre-issuance hedging costs and fair value adjustments. These pro forma condensed consolidated financial results have been prepared for comparative purposes only and include certain adjustments, such as fair value adjustment to inventory, increased interest expense on debt obtained to finance the transaction, and increased amortization for the fair value of acquired intangible assets.

The pro forma information does not reflect the effect of costs or synergies that would have been expected to result from the integration of the acquisition. The pro forma information does not purport to be indicative of the results of operations that actually would have resulted had the combination occurred at the beginning of each period presented, or of future results of the consolidated entities. The actual results of operations may differ significantly from the pro forma amounts reflected herein due to a variety of factors.

Other acquisitions in 2021. During fiscal year 2021, the Company also completed the acquisition of seven other businesses for aggregate consideration of $1.2 billion. The acquired businesses include Oxford Immunotec Global PLC, a company based in Abingdon, UK with approximately 275 employees, for total consideration of $590.9 million and Nexcelom Bioscience Holdings, LLC, a company based in Lawrence, Massachusetts with approximately 130 employees, for total consideration of $267.3 million, and five other businesses, which were acquired for total consideration of $331.0 million. The excess of the purchase prices over the fair values of the acquired businesses' net assets represents cost and revenue synergies specific to the Company, as well as non-capitalizable intangible assets, such as employee workforces acquired, and has been allocated to goodwill, which is not tax deductible. Identifiable definite-lived intangible assets, such as core technology, trade names, and customer relationships, acquired as part of these acquisitions had a weighted-average amortization period of 12.4 years.

The total purchase price for the acquisitions in fiscal year 2021 has been allocated to the estimated fair value of assets acquired and liabilities assumed as follows:

	Preliminary	
	BioLegend	Other
	(In thousands)	
Fair value of business combination:		
Cash payments	$ 3,336,115	$ 1,128,584
Common stock issued	2,638,369	—
Other liability	6,857	2,910
Contingent consideration	—	57,431
Working capital and other adjustments	—	183
Less: cash acquired	(292,377)	(195,010)
Total	$ 5,688,964	$ 994,098
Identifiable assets acquired and liabilities assumed:		
Current assets	$ 184,704	$ 72,826
Property, plant and equipment	147,200	26,507
Other assets	9,330	15,564
Identifiable intangible assets:		
Core technology and clone library	782,400	299,699
Trade names and patents	38,000	39,620
Licenses	8,979	—
Customer relationships and backlog	1,714,800	141,170
Goodwill	3,510,710	547,388
Deferred taxes	(668,920)	(83,931)
Deferred revenue	—	(1,197)
Debt assumed	—	(4,628)
Liabilities assumed	(38,239)	(58,920)
Total	$ 5,688,964	$ 994,098

The Company does not consider the other acquisitions completed during fiscal year 2021 to be material to its consolidated results of operations; therefore, the Company is only presenting pro forma financial information of operations for the BioLegend acquisition. The aggregate revenue and results of operations for the other acquisitions completed during fiscal year 2021 for the period from their respective acquisition dates to January 2, 2022 were not material.

Acquisitions in fiscal year 2020

During fiscal year 2020, the Company completed the acquisition of four businesses for aggregate consideration of $438.9 million. The acquired businesses were Horizon Discovery Group plc (“Horizon”), a company based in Cambridge, UK with approximately 400 employees, which was acquired on December 23, 2020 for a total consideration of $399.8 million (£296.0 million), and three other businesses which were acquired for a total consideration of $39.1 million. The excess of the purchase prices over the fair values of the acquired businesses' net assets represents cost and revenue synergies specific to the Company, as well as non-capitalizable intangible assets, such as the employee workforces acquired, and has been allocated to goodwill, which is not tax deductible. Identifiable definite-lived intangible assets, such as core technology, trade names, customer relationships and in-process research and development, acquired as part of these acquisitions had a weighted average amortization period of 11.0 years.

The total purchase price for the acquisitions in fiscal year 2020 has been allocated to the estimated fair value of assets acquired and liabilities assumed as follows:

	(In thousands)
Fair value of business combination:	
Cash payments	$ 437,661
Other liability	1,660
Working capital and other adjustments	(384)
Less: cash acquired	(26,840)
Total	$ 412,097
Identifiable assets acquired and liabilities assumed:	
Current assets	$ 35,532
Property, plant and equipment	20,302
Other assets	18,114
Identifiable intangible assets:	
Core technology	65,730
Trade names	5,580
Customer relationships and backlog	108,523
IPR&D	10,700
Goodwill	221,751
Deferred taxes	(25,674)
Deferred revenue	(2,031)
Liabilities assumed	(46,430)
Total	$ 412,097

The Company does not consider the acquisitions completed during fiscal year 2020 to be material to its consolidated results of operations. The aggregate revenue and results of operations for the acquisitions completed during fiscal year 2020 for the period from their respective acquisition dates to January 3, 2021 were not material.

Acquisitions in fiscal year 2019

During fiscal year 2019, the Company completed the acquisition of five businesses for aggregate consideration of $433.1 million. The acquired businesses include Cisbio Bioassays SAS, a company based in Codolet, France, which was acquired for total consideration of $219.9 million, Shandong Meizheng Bio-Tech Co., Ltd. ("Meizheng Group"), a company headquartered in Beijing, China, for total consideration of $166.5 million, and three other businesses which were acquired for total consideration of $46.6 million. The Company has a potential obligation to pay the former shareholders of certain of these acquired businesses additional contingent consideration of up to $31.8 million. The excess of the purchase prices over the fair values of the acquired businesses' net assets represents cost and revenue synergies specific to the Company, as well as non-capitalizable intangible assets, such as the employee workforces acquired, and has been allocated to goodwill, which is not tax deductible. Identifiable definite-lived intangible assets, such as core technology, trade names and customer relationships, acquired as part of these acquisitions had a weighted average amortization period of 11.0 years.

The total purchase price for the acquisitions in fiscal year 2019 has been allocated to the estimated fair value of assets acquired and liabilities assumed as follows:

	(In thousands)
Fair value of business combination:	
Cash payments	$ 409,837
Other liability	7,084
Contingent consideration	12,734
Working capital and other adjustments	3,401
Less: cash acquired	(15,984)
Total	$ 417,072
Identifiable assets acquired and liabilities assumed:	
Current assets	$ 62,756
Property, plant and equipment	11,840
Other assets	626
Identifiable intangible assets:	
Core technology	153,267
Trade names	11,210
Customer relationships	101,500
Goodwill	169,108
Deferred taxes	(63,113)
Debt assumed	(3,404)
Liabilities assumed	(26,718)
Total	$ 417,072

The Company does not consider the acquisitions completed during fiscal year 2019 to be material to its consolidated results of operations. The aggregate revenue and results of operations for the acquisitions completed during fiscal year 2019 for the period from their respective acquisition dates to December 29, 2019 were not material.

As of January 2, 2022, the allocations of purchase prices for acquisitions completed in fiscal years 2020 and 2019 were considered final. The preliminary allocations of the purchase prices for acquisitions completed in fiscal year 2021 were based upon initial valuations. The Company's estimates and assumptions underlying the initial valuations are subject to the collection of information necessary to complete its valuations within the measurement periods, which are up to one year from the respective acquisition dates. The primary areas of the preliminary purchase price allocations that are not yet finalized relate to the fair value of certain tangible and intangible assets acquired and liabilities assumed, assets and liabilities related to income taxes and related valuation allowances, and residual goodwill. The Company expects to continue to obtain information to assist in determining the fair values of the net assets acquired at the acquisition dates during the measurement periods. During the measurement periods, the Company will adjust assets or liabilities if new information is obtained about facts and circumstances that existed as of the acquisition dates that, if known, would have resulted in the recognition of those assets and liabilities as of those dates. These adjustments will be made in the periods in which the amounts are determined and the cumulative effect of such adjustments will be calculated as if the adjustments had been completed as of the acquisition dates. All changes that do not qualify as adjustments made during the measurement periods are also included in current period earnings.

During fiscal year 2021, the Company obtained information relevant to determining the fair values of certain tangible and intangible assets acquired, and liabilities assumed, related to recent acquisitions and adjusted its purchase price allocations. The adjustments to the preliminary measurement were not material.

The allocations of the purchase prices for acquisitions are based on estimates of the fair value of the net assets acquired and are subject to adjustment upon finalization of the purchase price allocations. The accounting for business combinations requires estimates and judgments as to expectations for future cash flows of the acquired business, and the allocation of those cash flows to identifiable intangible assets, in determining the estimated fair values for assets acquired and liabilities assumed. The fair values assigned to tangible and intangible assets acquired and liabilities assumed, including contingent consideration, are based on management’s estimates and assumptions, as well as other information compiled by management, including valuations that utilize customary valuation procedures and techniques. Contingent consideration is measured at fair value at the acquisition date, based on the probability that revenue thresholds or product development milestones will be achieved during

the earnout period, with changes in the fair value after the acquisition date affecting earnings to the extent it is to be settled in cash. Increases or decreases in the fair value of contingent consideration liabilities primarily result from changes in the estimated probabilities of achieving revenue thresholds or product development milestones during the earnout period.

As of January 2, 2022, the Company may have to pay contingent consideration, related to acquisitions with open contingency periods, of up to $108.4 million. As of January 2, 2022, the Company has recorded contingent consideration obligations of $58.0 million, of which $1.3 million was recorded in accrued expenses and other current liabilities, and $56.7 million was recorded in long-term liabilities. As of January 3, 2021, the Company had recorded contingent consideration obligations with an estimated fair value of $3.0 million, of which $2.9 million was recorded in accrued expenses and other current liabilities, and $0.1 million was recorded in long-term liabilities. The expected maximum earnout period for acquisitions with open contingency periods does not exceed 6.9 years from January 2, 2022, and the remaining weighted average expected earnout period at January 2, 2022 was 5.4 years. If the actual results differ from the estimates and judgments used in these fair values, the amounts recorded in the consolidated financial statements could result in a possible impairment of the intangible assets and goodwill, require acceleration of the amortization expense of definite-lived intangible assets or the recognition of additional contingent consideration which would be recognized as a component of operating expenses from continuing operations.

Total acquisition and divestiture-related costs were $97.5 million, $9.3 million and $6.6 million for fiscal years 2021, 2020 and 2019. These amounts included $14.3 million of incentive award associated with the Company's acquisition of Meizheng Group, $5.4 million of net foreign exchange gain and $23.4 million of costs of bridge financing and debt pre-issuance hedges related to the BioLegend acquisition in fiscal year 2021, $4.7 million of incentive award associated with the Company's acquisition of Meizheng Group and $0.5 million of acquisition-related interest expenses in fiscal year 2020, and $2.6 million of net foreign exchange loss related mainly to the Company's acquisition of Cisbio Bioassays SAS and $0.5 million of compensation expense related to the acquisition of Tulip Diagnostics Private Limited in fiscal year 2019. These acquisition and divestiture-related costs were expensed as incurred and recorded in selling, general and administrative expenses and interest and other expense, net in the Company's consolidated statements of operations.

Note 4: Restructuring and Other Costs, Net

The Company has undertaken a series of restructuring actions related to the impact of acquisitions and divestitures, the alignment of the Company's operations with its growth strategy, the integration of its business units and its productivity initiatives. The activities associated with these plans have been reported as restructuring and other costs, net, as applicable, and are included as a component of income from continuing operations. The current portion of restructuring and other costs is recorded in short-term accrued restructuring and other costs and accrued expenses and other current liabilities. The long-term portion of restructuring and other costs is recorded in operating lease liabilities and long-term liabilities.

The Company implemented restructuring plans in each quarter of fiscal year 2021 consisting of workforce reductions or closure of excess facility principally intended to realign resources to emphasize growth initiatives and integrate new acquisitions (the "Q1 2021 Plan" and "Q2 2021 Plan", "Q3 2021 Plan", and "Q4 2021 Plan", respectively). The Company implemented a restructuring plan in the first quarter of fiscal year 2020 consisting of workforce reductions and closure of excess facilities principally intended to realign resources to emphasize growth initiatives (the "Q1 2020 Plan"). The Company implemented a restructuring plan in the third quarter of fiscal year 2020 consisting of workforce reductions principally intended to realign resources to emphasize growth initiatives ("Q3 2020 Plan"). The Company implemented a restructuring plan in each quarter of fiscal year 2019 consisting of workforce reductions principally intended to realign resources to emphasize growth initiatives (the "Q1 2019 Plan", "Q2 2019 Plan", "Q3 2019 Plan" and "Q4 2019 Plan"). All other previous restructuring plans were workforce reductions or the closure of excess facility space principally intended to integrate the Company's businesses in order to realign operations, reduce costs, achieve operational efficiencies and shift resources into geographic regions and end markets that are more consistent with the Company's growth strategy (the "Previous Plans").

The following table summarizes the number of employees reduced, the initial restructuring or contract termination charges by operating segment, and the dates by which payments were substantially completed, or the expected dates by which payments will be substantially completed, for restructuring actions implemented during fiscal years 2021, 2020 and 2019 in continuing operations:

	Workforce Reductions			Closure of Excess Facility			(Expected) Date Payments Substantially Completed by	
	Headcount Reduction	Diagnostics	Discovery & Analytical Solutions	Diagnostics	Discovery & Analytical Solutions	Total	Severance	Excess Facility
	(In thousands, except headcount data)							
Q4 2021 Plan	31	$ 77	$ 3,139	$ —	$ 150	$ 3,366	Q3 FY2022	Q1 FY2023
Q3 2021 Plan	39	366	420	—	—	786	Q2 FY2022	—
Q2 2021 Plan	25	564	968	—	—	1,532	Q1 FY2022	—
Q1 2021 Plan	77	1,615	3,941	—	—	5,556	Q4 FY2021	—
Q3 2020 Plan	23	901	2,080	—	—	2,981	Q2 FY2021	—
Q1 2020 Plan	32	1,134	2,312	682	92	4,220	Q4 FY2020	Q1 FY2022
Q4 2019 Plan	22	2,404	177	—	—	2,581	Q3 FY2020	—
Q3 2019 Plan	259	2,641	11,156	—	—	13,797	Q2 FY2020	—
Q2 2019 Plan	44	1,129	4,461	—	—	5,590	Q1 FY2020	—
Q1 2019 Plan	105	1,459	6,001	—	—	7,460	Q4 FY2019	—

The Company expects to make payments under the Previous Plans for remaining residual lease obligations, with terms varying in length, through fiscal year 2022.

The Company has terminated various contractual commitments in connection with certain disposal activities and has recorded charges, to the extent applicable, for the costs of terminating these contracts before the end of their terms and the costs that will continue to be incurred for the remaining terms without economic benefit to the Company. The Company recorded additional pre-tax charges of $0.2 million and $0.2 million in the Discovery & Analytical Solutions segment during fiscal years 2020 and 2019, respectively, and $0.1 million and $0.2 million in the Diagnostics segment during fiscal years 2020 and 2019, respectively, as a result of these contract terminations.

The Company recorded pre-tax charges of $7.1 million, $4.3 million and $0.8 million associated with relocating facilities during fiscal years 2021, 2020 and 2019. The Company expects to make payments on these relocation activities through fiscal year 2022.

At January 2, 2022, the Company had $10.3 million recorded for accrued restructuring and other costs, of which $8.0 million was recorded in accrued expenses and other current liabilities, $0.7 million was recorded in long-term liabilities and $1.6 million was recorded as a reduction in operating lease right-of-use assets. At January 3, 2021, the Company had $8.3 million recorded for accrued restructuring and other costs, of which $4.7 million was recorded in short-term accrued restructuring and other costs, $2.0 million was recorded in accrued expenses and other current liabilities and $1.6 million was recorded as a reduction in operating lease right-of-use assets.

Note 5: Interest and Other Expense, Net

Interest and other expense, net, consisted of the following for the fiscal years ended:

	January 2, 2022	January 3, 2021	December 29, 2019
		(In thousands)	
Interest income	$ (2,241)	$ (1,010)	$ (1,495)
Interest expense including costs of bridge financing	102,128	49,712	63,627
Loss on disposition of businesses and assets, net	—	—	2,469
Change in fair value of financial securities	(10,985)	(35)	(3,249)
Other components of net periodic pension (credit) cost	(39,767)	18,833	25,344
Debt extinguishment costs	—	—	32,541
Other expense, net	3,357	4,717	5,594
Total interest and other expense, net	$ 52,492	$ 72,217	$ 124,831

Note 6: Income Taxes

The components of income from continuing operations before income taxes were as follows for the fiscal years ended:

	January 2, 2022	January 3, 2021	December 29, 2019
		(In thousands)	
U.S.	$ 562,704	$ 183,452	$ 29,252
Non-U.S.	717,182	722,912	207,890
Total	$ 1,279,886	$ 906,364	$ 237,142

The components of the provision for income taxes on continuing operations were as follows:

	Current Expense	Deferred Expense (Benefit)	Total
		(In thousands)	
Fiscal year ended January 2, 2022			
Federal	$ 150,621	$ (37,551)	$ 113,070
State	62,381	3,508	65,889
Non-U.S.	172,943	(15,299)	157,644
Total	$ 385,945	$ (49,342)	$ 336,603
Fiscal year ended January 3, 2021			
Federal	$ 21,262	$ 15,951	$ 37,213
State	13,688	(967)	12,721
Non-U.S.	172,437	(44,105)	128,332
Total	$ 207,387	$ (29,121)	$ 178,266
Fiscal year ended December 29, 2019			
Federal	$ 3,735	$ (267)	$ 3,468
State	4,425	(1,574)	2,851
Non-U.S.	62,582	(59,512)	3,070
Total	$ 70,742	$ (61,353)	$ 9,389

The total provision for income taxes included in the consolidated financial statements is as follows for the fiscal years ended:

	January 2, 2022	January 3, 2021	December 29, 2019
		(In thousands)	
Continuing operations	$ 336,603	$ 178,266	$ 9,389
Discontinued operations	126	135	195
Total	$ 336,729	$ 178,401	$ 9,584

A reconciliation of income tax expense at the U.S. federal statutory income tax rate to the recorded tax provision is as follows for the fiscal years ended:

	January 2, 2022	January 3, 2021	December 29, 2019
		(In thousands)	
Tax at statutory rate	$ 268,776	$ 190,339	$ 49,799
Non-U.S. rate differential, net	(34,676)	(40,216)	(32,124)
U.S. taxation of multinational operations	9,731	9,050	4,251
State income taxes, net	37,907	13,306	1,941
Prior year tax matters	3,068	8,262	(5,103)
Effect of stock compensation	(2,961)	(8,818)	(2,053)
General business tax credits	(4,277)	(4,136)	(4,325)
Change in valuation allowance	3,070	10	(1,117)
Rate change on long term intangibles	14,031	—	—
Effect of foreign operations	37,147	—	—
Foreign consolidations	—	15,222	—
Tax elections	—	—	(3,700)
Impact of U.S. Tax Act	—	—	2,718
Others, net	4,787	(4,753)	(898)
Total	$ 336,603	$ 178,266	$ 9,389

The variation in the Company's effective tax rate for fiscal year 2021 is primarily affected by the recognition of $37.1 million in U.S. federal, U.S. state and non-U.S. taxes due when the Company repatriates foreign earnings that it no longer considers indefinitely reinvested. The Company also recognized $19.0 million in fiscal year 2021, $21.8 million in fiscal year 2020 and $10.4 million in fiscal year 2019 of benefits derived from tax holidays in China and Singapore. The effect of these benefits, derived from tax holidays, on basic and diluted earnings per share for fiscal year 2021 was $0.16 and $0.16, respectively, for fiscal year 2020 was $0.20 and $0.19, respectively, and for fiscal year 2019 was $0.09 and $0.09, respectively. The tax holiday in China is renewed every three years. The Company expects to renew the tax holiday for two of the Company's subsidiaries in China that expired in fiscal year 2021. The tax holiday for one of the Company's subsidiaries in Singapore is scheduled to expire in fiscal year 2023.

The Company regularly reviews its tax positions in each significant taxing jurisdiction in the process of evaluating its unrecognized tax benefits. The Company makes adjustments to its unrecognized tax benefits when: (i) facts and circumstances regarding a tax position change, causing a change in management’s judgment regarding that tax position; (ii) a tax position is effectively settled with a tax authority at a differing amount; and/or (iii) the statute of limitations expires regarding a tax position.

The tabular reconciliation of the total amounts of unrecognized tax benefits is as follows for the fiscal years ended:

	January 2, 2022	January 3, 2021	December 29, 2019
		(In thousands)	
Unrecognized tax benefits, beginning of year	$ 38,773	$ 35,547	$ 33,009
Gross increases—tax positions in prior periods	2,877	4,974	275
Gross decreases—tax positions in prior periods	—	(2,471)	(2,183)
Gross increases—current-period tax positions	149	151	152
Gross increases related to acquisitions	22,697	158	4,158
Settlements	(2,252)	—	(45)
Lapse of statute of limitations	(563)	—	—
Foreign currency translation adjustments	(23)	414	181
Unrecognized tax benefits, end of year	$ 61,658	$ 38,773	$ 35,547

The Company classifies interest and penalties as a component of income tax expense. At January 2, 2022 and January 3, 2021, the Company had accrued interest and penalties of $7.6 million and $5.8 million, respectively. During fiscal years 2021, 2020 and 2019, the Company recognized a net expense of $1.8 million, $1.8 million and $1.6 million, respectively, for interest and penalties in its total tax provision which includes settlements and statutes of limitations that had lapsed. At January 2, 2022,

the Company had tax effected unrecognized tax benefits which, if recognized, $58.0 million would affect the continuing operations effective tax rate and $1.7 million would affect discontinued operations.

The Company believes that it is reasonably possible that approximately $1.0 million of its uncertain tax positions at January 2, 2022, including accrued interest and penalties, and net of tax benefits, may be resolved over the next twelve months as a result of lapses in applicable statutes of limitations and potential settlements. Various tax years after 2010 remain open to examination by certain jurisdictions in which the Company has significant business operations, such as China, Finland, Germany, Luxembourg, The Netherlands, Singapore, the United Kingdom and the United States. The tax years under examination vary by jurisdiction.

During fiscal year 2021, the Company recorded net discrete income tax expense of $43.2 million, which primarily consisted of $37.1 million related to the assertions regarding reinvestment of foreign earnings, increase in unrecognized tax benefits of $1.9 million, other adjustments of $3.9 million and a discrete tax expense of $14.0 million due to the remeasurement of United Kingdom deferred tax liabilities on long-lived purchase accounting intangibles and a $1.8 million tax benefit related to other net United Kingdom deferred tax assets and liabilities in connection with United Kingdom Finance Act 2021, which increased the United Kingdom corporation tax from 19% to 25%, effective April 1, 2023. The remaining discrete tax benefit, excluding the United Kingdom rate change, related to excess tax benefits on stock compensation of $5.5 million and $6.4 million resulting from a transaction that was completed during the second quarter of fiscal year 2021.

During fiscal year 2020, the Company recorded net discrete income tax expense of $10.8 million, which primarily consisted of $15.2 million assessment related to the consolidation of foreign entities in fiscal years 2019 and 2018. The Company filed an appeal for relief on this matter with the relevant foreign tax authority, but cannot be assured of a favorable outcome, and has therefore recorded the full impact in the tax provision. The Company also provided for interest on uncertain tax positions of $4.5 million, foreign tax rate changes of $2.5 million, return to provision adjustments of $1.2 million and other tax matters of $1.6 million, offset by recognition of excess tax benefits on stock compensation of $11.7 million and a valuation allowance reversal of $2.5 million.

During fiscal year 2019, the Company recorded a net discrete income tax benefit of $23.4 million which was primarily due to a valuation allowance reversal of $12.3 million, recognition of excess tax benefits on stock compensation of $4.9 million, return to provision adjustments of $6.7 million and benefits from tax elections made during fiscal year 2019 of $3.7 million, partially offset by a tax expense of $2.7 million related to the one-time transition tax under the Tax Cut and Jobs Act ("Tax Act") and additional discrete expense of $1.4 million expense related to other tax matters.

The tax effects of temporary differences and attributes that gave rise to deferred income tax assets and liabilities were as follows:

	January 2, 2022	January 3, 2021
	(In thousands)	
Deferred tax assets:		
Inventory	$ 3,152	$ 4,788
Reserves and accruals	56,085	51,107
Accrued compensation	30,352	20,881
Net operating loss and credit carryforwards	113,787	131,884
Accrued pension	23,801	34,192
Restructuring reserve	1,442	1,579
Deferred revenue	49,431	29,838
Operating lease liabilities	37,936	42,220
Unrealized foreign exchange loss	14,631	21,614
All other, net	631	—
Total deferred tax assets	331,248	338,103
Deferred tax liabilities:		
Postretirement health benefits	(5,303)	(8,168)
Depreciation and amortization	(1,037,637)	(355,876)
Operating lease right-of-use assets	(34,111)	(38,598)
Prepaids	(3,263)	(4,160)
Deferred tax liability on foreign earnings	(31,239)	—
Total deferred tax liabilities	(1,111,553)	(406,802)
Valuation allowance	(91,503)	(99,740)
Net deferred tax liabilities	$ (871,808)	$ (168,439)

The components of net deferred tax liabilities were recognized in the consolidated balance sheets as follows:

	January 2, 2022	January 3, 2021
	(In thousands)	
Other assets, net	$ 22,007	$ 65,518
Deferred taxes and other long-term liabilities	(893,815)	(233,957)
Total	$ (871,808)	$ (168,439)

At January 2, 2022, for income tax return purposes, the Company had U.S. federal net operating loss carryforwards of $74.8 million, state net operating loss carryforwards of $10.8 million, foreign net operating loss carryforwards of $452.0 million, state tax credit carryforwards of $15.0 million, general business tax credit carryforwards of $0.6 million, and foreign tax credit carryforwards of $0.1 million. These losses begin to expire in 2022 without expiration for certain foreign net operating loss carryforwards and certain state credit carryforwards.

Valuation allowances take into consideration limitations imposed upon the use of the tax attributes and reduce the value of such items to the likely net realizable amount. The Company regularly evaluates positive and negative evidence available to determine if valuation allowances are required or if existing valuation allowances are no longer required. Valuation allowances have been provided on state net operating loss and state tax credit carryforwards and on certain foreign tax attributes that the Company has determined are not more likely than not to be realized. The decrease in the valuation allowance of $8.2 million in fiscal year 2021 is primarily due to release of net operating loss carryforwards as a result of an audit settlement in Finland and utilization of carryforwards in Luxembourg, offset by an increase in China and other jurisdictions.

The components of net deferred tax liabilities were as follows:

	January 2, 2022	January 3, 2021
	(In thousands)	
U.S.	$ (621,449)	$ 50,302
Non-U.S.	(250,359)	(218,741)
Total	$ (871,808)	$ (168,439)

Prior to enactment of the Tax Act, the Company did not provide deferred income tax expense on the cumulative undistributed earnings of its international subsidiaries. The Tax Act required the Company to accrue a one-time transition tax on the unremitted earnings of its foreign subsidiaries. At December 31, 2017, the Company accrued for a one-time transition tax expense of $85.0 million on its unremitted foreign earnings in accordance with the Tax Act. The U.S. Treasury subsequently issued regulations on the Tax Act and the Company recorded tax expense (benefit) of $2.7 million and $(4.6) million during fiscal years 2019 and 2018, respectively.

As of January 2, 2022, the Company evaluated its undistributed foreign earnings and identified approximately $1.2 billion in earnings that it no longer considers indefinitely reinvested. The Company intends to begin repatriating such earnings to the U.S., in whole or in part, during fiscal year 2022. In doing so, the Company has recorded a provision of approximately $37.1 million for the U.S. federal, U.S. state and non-U.S. taxes that would fall due when such earnings are repatriated. No additional income tax expense has been provided for any remaining undistributed foreign earnings, or any additional outside basis difference inherent in these entities, as these amounts continue to be indefinitely reinvested.

Note 7: Earnings Per Share

Basic earnings per share was computed by dividing net income by the weighted-average number of common shares outstanding during the period less restricted unvested shares. Diluted earnings per share was computed by dividing net income by the weighted-average number of common shares outstanding plus all potentially dilutive common stock equivalents, primarily shares issuable upon the exercise of stock options using the treasury stock method. The following table reconciles the number of shares utilized in the earnings per share calculations for the fiscal years ended:

	January 2, 2022	January 3, 2021	December 29, 2019
		(In thousands)	
Number of common shares—basic	116,165	111,514	110,827
Effect of dilutive securities:			
Stock options	391	466	541
Restricted stock awards	118	105	133
Number of common shares—diluted	116,674	112,085	111,501
Number of potentially dilutive securities excluded from calculation due to antidilutive impact	487	220	364

Antidilutive securities include outstanding stock options with exercise prices and average unrecognized compensation cost in excess of the average fair market value of common stock for the related period. Antidilutive options were excluded from the calculation of diluted net income per share and could become dilutive in the future.

Note 8: Accounts Receivable, Net

Accounts receivable, net consisted of the following:

	January 2, 2022	January 3, 2021
	(In thousands)	
Accounts receivable, net, current	$ 1,023,792	$ 1,155,109
Long-term accounts receivable, net, included in Other assets, net	30,303	22,510
Total accounts receivable, net	$ 1,054,095	$ 1,177,619

Reserves for credit losses consisted of the following:

	Balance at Beginning of Year	Provisions	Charges/ Write-offs	Other[1]	Balance at End of Year
			(In thousands)		
Year ended December 29, 2019	$ 30,590	$ 6,853	$ (3,009)	$ 798	$ 35,232
Year ended January 3, 2021	35,232	16,695	(5,857)	1,524	47,594
Year ended January 2, 2022	47,594	8,150	(4,646)	101	51,199

(1) Other amounts primarily relate to the impact of acquisitions, discontinued operations and foreign exchange movements.

Note 9: Inventories

Inventories consisted of the following:

	January 2, 2022	January 3, 2021
	(In thousands)	
Raw materials	$ 229,356	$ 205,022
Work in progress	69,744	35,160
Finished goods	325,614	274,385
Total inventories	$ 624,714	$ 514,567

Note 10: Property, Plant and Equipment, Net

Property, plant and equipment consisted of the following:

	January 2, 2022	January 3, 2021
	(In thousands)	
At cost:		
Land	$ 29,793	$ 3,937
Building and leasehold improvements	428,322	291,526
Machinery and equipment	608,658	522,734
Total property, plant and equipment	1,066,773	818,197
Accumulated depreciation	(521,168)	(449,893)
Total property, plant and equipment, net	$ 545,605	$ 368,304

Depreciation expense on property, plant and equipment for the fiscal years ended January 2, 2022, January 3, 2021 and December 29, 2019 was $67.3 million, $54.0 million and $49.7 million, respectively.

Note 11: Marketable Securities and Investments

Investments consisted of the following:

	January 2, 2022	January 3, 2021
	(In thousands)	
Marketable securities	$ 53,073	$ 2,154
Equity investments	31,514	48,626
	$ 84,587	$ 50,780

Marketable securities. Marketable securities include equity and fixed-income securities. The net unrealized holding gain and loss on marketable securities, net of deferred income taxes, reported as a component of other comprehensive income (loss) in the consolidated statements of stockholders' equity, was not material in fiscal years 2021 and 2020. The proceeds from the sales of securities and the related gains and losses are not material for any period presented.

Marketable securities classified as available for sale consisted of the following:

		Gross Unrealized Holding	
	Market Value	Cost	Gains	(Losses)
		(In thousands)		
January 2, 2022				
Equity securities	$ 51,418	$ 51,418	$ —	$ —
Fixed-income securities	7	7	—	—
Other	1,648	1,711	—	(63)
	$ 53,073	$ 53,136	$ —	$ (63)
January 3, 2021				
Equity securities	$ 203	$ 584	$ —	$ (381)
Fixed-income securities	7	7	—	—
Other	1,944	2,007	—	(63)
	$ 2,154	$ 2,598	$ —	$ (444)

Equity investments. The Company has equity interests in privately-held entities over which the Company neither has significant influence nor control.

Equity investments without readily determinable fair values as of January 2, 2022 and January 3, 2021 consisted of the following:

	January 2, 2022	January 3, 2021
	(In thousands)	
Equity investments, carried at cost minus impairment, if any	$ 30,176	$ 27,438
Equity investments, carried at fair value	1,338	21,188
	$ 31,514	$ 48,626

The amount of upward adjustments during fiscal years 2021, 2020 and 2019 were $19.6 million, $0.04 million and $8.2 million, respectively. The cumulative amount of upward adjustments as of January 2, 2022 and January 3, 2021 was $27.8 million and $8.2 million, respectively. The amount of impairments and downward adjustments during fiscal year 2021 and fiscal year 2019 were $0.1 million and $4.9 million, respectively. The cumulative amount of impairments and downward adjustments as of January 2, 2022 and January 3, 2021 was $5.0 million and $4.9 million, respectively.

Note 12: Goodwill and Intangible Assets, Net

The Company tests goodwill and indefinite-lived intangible assets at least annually for possible impairment. Accordingly, the Company completes the annual testing of impairment for goodwill and indefinite-lived intangible assets on the later of January 1 or the first day of each fiscal year. In addition to its annual test, the Company regularly evaluates whether events or circumstances have occurred that may indicate a potential impairment of goodwill or indefinite-lived intangible assets.

The process of testing goodwill for impairment involves the determination of the fair value of the applicable reporting units. The test consists of the comparison of the fair value to the carrying value of the reporting unit to determine if the carrying value exceeds the fair value. If the carrying value of the reporting unit exceeds its fair value, an impairment loss in an amount equal to that excess is recognized up to the amount of goodwill. The Company performed its annual impairment testing for its reporting units as of January 4, 2021, its annual impairment testing date for fiscal year 2021. The Company concluded based on the first step of the process that there was no goodwill impairment, and the fair value exceeded the carrying value by more than 20% for each reporting unit, except for the Company's Tulip reporting unit, which had a fair value that was between 10% and 20% more than its carrying value. While the Company believes that its estimates of current value are reasonable, if actual results differ from the estimates and judgments used, including such items as future cash flows and the volatility inherent in markets which the Company serves, impairment charges against the carrying value of those assets could be required in the future.

Indefinite-lived intangibles are also subject to an annual impairment test. The Company consistently employed the relief from royalty model to estimate the current fair value when testing for impairment of indefinite-lived intangible asset. The impairment test consists of a comparison of the fair value of the indefinite-lived intangible asset with its carrying amount. If the carrying amount of an indefinite-lived intangible asset exceeds its fair value, an impairment loss in an amount equal to that excess is recognized up to the amount of the amortizing intangible asset.

The changes in the carrying amount of goodwill for fiscal years 2021 and 2020 are as follows:

	Discovery & Analytical Solutions	Diagnostics	Consolidated
		(In thousands)	
Balance at December 29, 2019	$ 1,498,820	$ 1,612,407	$ 3,111,227
Foreign currency translation	58,086	62,596	120,682
Acquisitions, earnouts and other	198,981	16,224	215,205
Balance at January 3, 2021	1,755,887	1,691,227	3,447,114
Foreign currency translation	(51,963)	(40,557)	(92,520)
Acquisitions, earnouts and other	3,742,310	319,680	4,061,990
Balance at January 2, 2022	$ 5,446,234	$ 1,970,350	$ 7,416,584

Identifiable intangible asset balances at January 2, 2022 by category and segment were as follows:

	Discovery & Analytical Solutions	Diagnostics	Consolidated
		(In thousands)	
Patents	$ 28,324	$ 2,709	$ 31,033
Less: Accumulated amortization	(27,961)	(732)	(28,693)
Net patents	363	1,977	2,340
Trade names and trademarks	91,300	79,683	170,983
Less: Accumulated amortization	(40,472)	(21,969)	(62,441)
Net trade names and trademarks	50,828	57,714	108,542
Licenses	59,477	8,410	67,887
Less: Accumulated amortization	(50,347)	(3,968)	(54,315)
Net licenses	9,130	4,442	13,572
Core technology	1,314,313	519,864	1,834,177
Less: Accumulated amortization	(285,477)	(208,833)	(494,310)
Net core technology	1,028,836	311,031	1,339,867
Customer relationships	2,311,599	884,105	3,195,704
Less: Accumulated amortization	(307,367)	(366,058)	(673,425)
Net customer relationships	2,004,232	518,047	2,522,279
IPR&D	5,920	—	5,920
Net amortizable intangible assets	3,099,309	893,211	3,992,520
Indefinite-lived intangible asset:			
Trade name	70,584	—	70,584
Total	$ 3,169,893	$ 893,211	$ 4,063,104

Identifiable intangible asset balances at January 3, 2021 by category and segment were as follows:

	Discovery & Analytical Solutions	Diagnostics	Consolidated
		(In thousands)	
Patents	$ 28,146	$ 2,709	$ 30,855
Less: Accumulated amortization	(27,933)	(507)	(28,440)
Net patents	213	2,202	2,415
Trade names and trademarks	51,143	47,518	98,661
Less: Accumulated amortization	(31,859)	(16,947)	(48,806)
Net trade names and trademarks	19,284	30,571	49,855
Licenses	50,468	8,232	58,700
Less: Accumulated amortization	(49,317)	(3,135)	(52,452)
Net licenses	1,151	5,097	6,248
Core technology	456,607	333,192	789,799
Less: Accumulated amortization	(232,648)	(166,344)	(398,992)
Net core technology	223,959	166,848	390,807
Customer relationships	475,748	881,912	1,357,660
Less: Accumulated amortization	(239,428)	(283,392)	(522,820)
Net customer relationships	236,320	598,520	834,840
IPR&D	10,944	—	10,944
Net amortizable intangible assets	491,871	803,238	1,295,109
Indefinite-lived intangible asset:			
Trade name	70,584	—	70,584
Total	$ 562,455	$ 803,238	$ 1,365,693

Total amortization expense related to definite-lived intangible assets was $290.2 million in fiscal year 2021, $192.6 million in fiscal year 2020 and $164.3 million in fiscal year 2019. Estimated amortization expense related to definite-lived intangible assets for each of the next five years is $413.6 million in fiscal year 2022, $402.8 million in fiscal year 2023, $391.0 million in fiscal year 2024, $363.5 million in fiscal year 2025, and $349.6 million in fiscal year 2026.

Note 13: Debt

The Company's debt consisted of the following:

	January 2, 2022			
	Outstanding Principal	Unamortized Debt Discount	Unamortized Debt Issuance Costs	Net Carrying Amount
	(In thousands)			
Long-Term Debt:				
Senior Unsecured Revolving Credit Facility	$ —	$ —	$ (3,362)	$ (3,362)
Unsecured Term Loan Credit Facility	500,000	(14)	(658)	499,328
0.550% Senior Unsecured Notes due in 2023	500,000	(152)	(2,093)	497,755
0.850% Senior Unsecured Notes due in 2024	800,000	(447)	(4,945)	794,608
1.875% Senior Unsecured Notes due in 2026 ("2026 Notes")	568,600	(2,538)	(2,280)	563,782
1.900% Senior Unsecured Notes due in 2028	500,000	(348)	(4,200)	495,452
3.3% Senior Unsecured Notes due in 2029 ("2029 Notes")	850,000	(2,252)	(6,234)	841,514
2.55% Senior Unsecured Notes due in 2031	400,000	(126)	(3,294)	396,580
2.250% Senior Unsecured Notes due in 2031	500,000	(1,485)	(4,380)	494,135
3.625% Senior Unsecured Notes due in 2051	400,000	(4)	(4,335)	395,661
Other Debt Facilities, non-current	4,284	—	—	4,284
Total Long-Term Debt	5,022,884	(7,366)	(35,781)	4,979,737
Current Portion of Long-term Debt:				
Other Debt Facilities, current	4,240	—	—	4,240
Total Debt	$ 5,027,124	$ (7,366)	$ (35,781)	$ 4,983,977

	January 3, 2021			
	Outstanding Principal	Unamortized Debt Discount	Unamortized Debt Issuance Costs	Net Carrying Amount
	(In thousands)			
Long-Term Debt:				
Senior Unsecured Revolving Credit Facility	$ 158,595	$ —	$ (2,621)	$ 155,974
2026 Notes	610,750	(3,253)	(2,782)	604,715
2029 Notes	850,000	(2,496)	(6,908)	840,596
Other Debt Facilities, non-current	8,416	—	—	8,416
Total Long-Term Debt	1,627,761	(5,749)	(12,311)	1,609,701
Current Portion of Long-term Debt:				
0.6% Senior Unsecured Notes due in 2021 ("2021 Notes")	366,450	(16)	(229)	366,205
Other Debt Facilities, current	14,743	—	—	14,743
Total Current Portion of Long-Term Debt	381,193	(16)	(229)	380,948
Total Debt	$ 2,008,954	$ (5,765)	$ (12,540)	$ 1,990,649

Senior Unsecured Revolving Credit Facility. On August 24, 2021, the Company terminated its previous senior unsecured revolving credit facility and entered into a new senior unsecured revolving credit facility with a five-year term and a borrowing capacity of $1.5 billion available through August 24, 2026. As of January 2, 2022, undrawn letters of credit in the aggregate amount of $11.0 million were treated as issued and outstanding when calculating the borrowing availability under the facility. As of January 2, 2022, the Company had $1.49 billion available for additional borrowing under the facility. Borrowings will bear interest, payable quarterly or, if earlier, at the end of any interest period, at the Company's option at either (a) the base rate

(as defined in the credit agreement), or (b) the eurocurrency rate (a publicly published rate), in each case plus a percentage spread based on the credit rating of the Company's debt. The base rate is the highest of (a) the Federal Funds Rate (as defined in the credit agreement) plus 0.50%, (b) the rate of interest in effect for such day as publicly announced from time to time by Bank of America as its "prime rate," and (c) the Eurocurrency Rate plus 1.00%. The credit agreement for the new facility contains customary affirmative, negative and financial covenants and events of default. The financial covenants include a debt-to-capital ratio that remains applicable for so long as the Company's debt is rated as investment grade. In the event that the Company's debt is not rated as investment grade, the debt-to-capital ratio covenant is replaced with leverage ratio and interest coverage ratio covenants.

Unsecured Term Loan Credit Facility. The Company entered into an unsecured delayed draw term loan credit facility on August 11, 2021 that provided for $500.0 million of term loans available through the earlier of (i) the consummation of the Company's acquisition of BioLegend (with such transaction acquiring BioLegend being the “Acquisition”) and (ii) the date that is five (5) business days after October 25, 2021, and as could be extended through January 31, 2022 in the event that the outside date under the definitive agreement with respect to the Acquisition was extended. On September 16, 2021, the Company borrowed the full $500.0 million from the term loan facility and used the proceeds to partially fund the Acquisition. The interest rates under the senior unsecured term loan credit facility are at either (a) the base rate, as described in the credit agreement, or (b) the eurocurrency rate (a publicly published rate), in each case plus a percentage spread based on the credit rating of the Company’s debt. The base rate is the highest of (a) the Federal Funds Rate (as defined in the credit agreement) plus 0.50%, (b) the rate of interest in effect for such day as publicly announced from time to time by Bank of America as its "prime rate," and (c) the Eurocurrency Rate plus 1.00%. The Eurocurrency margin as of January 2, 2022 was 113.0 basis points. The weighted average Eurocurrency interest rate as of January 2, 2022 was 0.10%, resulting in a weighted average effective Eurocurrency Rate, including the margin, of 1.23%, which was the interest applicable to the borrowings outstanding as of January 2, 2022. The credit agreement for the facility contains customary affirmative, negative and financial covenants and events of defaults which are substantially similar to those contained in the senior unsecured revolving credit facility.

Senior Unsecured Notes. On September 10, 2021, the Company issued the following notes:

- $500.0 million aggregate principal amount of 0.550% senior unsecured notes due in 2023 (the "2023 Notes”),
- $800.0 million aggregate principal amount of 0.850% senior unsecured notes due in 2024 (the "2024 Notes”),
- $500.0 million aggregate principal amount of 1.900% senior unsecured notes due in 2028 (the "2028 Notes”), and
- $500.0 million aggregate principal amount of 2.250% senior unsecured notes due in September 2031 (the "September 2031 Notes”).

On March 8, 2021, the Company issued the following notes:

- $400.0 million aggregate principal amount of 2.550% senior unsecured notes due in March 2031 (the "March 2031 Notes”), and
- $400.0 million aggregate principal amount of 3.625% senior unsecured notes due in 2051 (the "2051 Notes”).

Interest on each series of notes is payable semi-annually on March 15th and September 15th each year. The notes include optional redemption features, which allow the Company to redeem the notes, at the Company's option and subject to terms, conditions and limitations specified in the indentures governing the notes, at redemption prices set forth in the indentures governing the notes, plus accrued and unpaid interest, if any, to, but excluding, the date of redemption. Upon a change of control repurchase event (as defined in the indentures governing the notes) of the Company, the Company will, in certain circumstances, make an offer to repurchase the notes at a price equal to 101% of their principal amount plus any accrued and unpaid interest, if any, to, but excluding, the date of repurchase.

The following table summarizes the maturities of the Company's indebtedness as of January 2, 2022:

	2022	2023	2024	2025	2026	2027 and thereafter	Total before unamortized discount and debt issuance costs	Unamortized discount and debt issuance costs	Total
					(In thousands)				
Senior Unsecured Revolving Credit Facility	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ (3,362)	$ (3,362)
Unsecured Term Loan Credit Facility	—	—	500,000	—	—	—	500,000	(672)	499,328
2023 Notes	—	500,000	—	—	—	—	500,000	(2,245)	497,755
2024 Notes	—	—	800,000	—	—	—	800,000	(5,392)	794,608
2026 Notes	—	—	—	—	568,600	—	568,600	(4,818)	563,782
2028 Notes	—	—	—	—	—	500,000	500,000	(4,548)	495,452
2029 Notes	—	—	—	—	—	850,000	850,000	(8,486)	841,514
March 2031 Notes	—	—	—	—	—	400,000	400,000	(3,420)	396,580
September 2031 Notes	—	—	—	—	—	500,000	500,000	(5,865)	494,135
2051 Notes	—	—	—	—	—	400,000	400,000	(4,339)	395,661
Other Debt Facilities	4,240	2,530	1,277	214	123	140	8,524	—	8,524
Total	$ 4,240	$ 502,530	$ 1,301,277	$ 214	$ 568,723	$2,650,140	$ 5,027,124	$ (43,147)	$ 4,983,977

Note 14: Accrued Expenses and Other Current Liabilities

Accrued expenses and other current liabilities consisted of the following:

	January 2, 2022	January 3, 2021
	(In thousands)	
Payroll and incentives	$ 106,338	$ 96,502
Employee benefits	54,058	47,489
Deferred revenue	226,331	206,494
Federal, non-U.S. and state income taxes	90,963	97,406
Operating lease liabilities	40,567	40,330
Contract liabilities	77,178	189,718
Other accrued operating expenses	258,611	265,977
Total accrued expenses and other current liabilities	$ 854,046	$ 943,916

Note 15: Employee Benefit Plans

Savings Plan: The Company has a 401(k) Savings Plan for the benefit of all qualified U.S. employees, with such employees receiving matching contributions in the amount equal to 100.0% of the first 5.0% of eligible compensation up to applicable Internal Revenue Service limits. Savings plan expense was $16.5 million in fiscal year 2021, $14.1 million in fiscal year 2020, and $13.6 million in fiscal year 2019.

Pension Plans: The Company has a defined benefit pension plan covering certain U.S. employees and non-U.S. pension plans for certain non-U.S. employees. The principal U.S. defined benefit pension plan was closed to new hires effective January 31, 2001, and benefits for those employed by the Company's former Life Sciences business were frozen as of that date. Plan benefits were frozen as of March 2003 for those employed by the Company's former Analytical Instruments business and corporate employees. Plan benefits were frozen as of January 31, 2011 for all remaining employees that were still actively

accruing in the plan. The plans provide benefits that are based on an employee's years of service and compensation near retirement.

Net periodic pension cost for U.S. and non-U.S. plans included the following components for fiscal years ended:

	January 2, 2022	January 3, 2021	December 29, 2019
		(In thousands)	
Service and administrative costs	$ 5,174	$ 7,414	$ 6,598
Interest cost	9,440	12,876	16,546
Expected return on plan assets	(24,417)	(21,786)	(24,561)
Actuarial (gain) loss	(19,514)	20,291	27,134
Curtailment gain	—	—	(1,547)
Amortization of prior service credit	—	—	(152)
Net periodic pension (credit) cost	$ (29,317)	$ 18,795	$ 24,018

The Company recognizes actuarial gains and losses, unless an interim remeasurement is required, in the fourth quarter of the year in which the gains and losses occur. Such adjustments for gains and losses are primarily driven by events and circumstances beyond the Company's control, including changes in interest rates, the performance of the financial markets and mortality assumptions. Actuarial gains and losses, including other components of periodic pension cost, are recognized in the line item "Interest and other expense, net" in the consolidated statements of operations.

The following table sets forth the changes in the funded status of the principal U.S. pension plan and the principal non-U.S. pension plans and the amounts recognized in the Company's consolidated balance sheets as of January 2, 2022 and January 3, 2021.

	January 2, 2022		January 3, 2021	
	Non-U.S.	U.S.	Non-U.S.	U.S.
	(In thousands)			
Actuarial present value of benefit obligations:				
Accumulated benefit obligations	$ 337,454	$ 299,826	$ 392,948	$ 317,679
Change in benefit obligations:				
Projected benefit obligations at beginning of year	$ 395,339	$ 317,679	$ 341,455	$ 304,710
Service and administrative costs	4,924	250	5,314	2,100
Interest cost	2,632	6,808	3,991	8,885
Benefits paid and plan expenses	(15,299)	(18,693)	(15,823)	(20,510)
Participants' contributions	—	—	37	—
Business acquisitions	—	—	(120)	—
Actuarial (gains) losses	(30,705)	(6,218)	35,910	22,494
Effect of exchange rate changes	(17,501)	—	24,575	—
Projected benefit obligations at end of year	$ 339,390	$ 299,826	$ 395,339	$ 317,679
Change in plan assets:				
Fair value of plan assets at beginning of year	$ 204,744	$ 268,686	$ 179,860	$ 254,450
Actual return on plan assets	(13,115)	20,123	25,153	34,746
Benefits paid and plan expenses	(15,299)	(18,693)	(15,823)	(20,510)
Employer's contributions	6,851	20,000	7,506	—
Participants' contributions	—	—	37	—
Effect of exchange rate changes	(1,992)	—	8,011	—
Fair value of plan assets at end of year	$ 181,189	$ 290,116	$ 204,744	$ 268,686
Net liabilities recognized in the consolidated balance sheets	$ (158,201)	$ (9,710)	$ (190,595)	$ (48,993)
Net amounts recognized in the consolidated balance sheets consist of:				
Other assets	$ 33,084	$ —	$ 36,295	$ —
Current liabilities	(6,966)	—	(7,597)	—
Long-term liabilities	(184,319)	(9,710)	(219,293)	(48,993)
Net liabilities recognized in the consolidated balance sheets	$ (158,201)	$ (9,710)	$ (190,595)	$ (48,993)
Actuarial assumptions as of the year-end measurement date:				
Discount rate	1.41 %	2.44 %	0.92 %	2.21 %
Rate of compensation increase	2.78 %	None	2.78 %	None

Actuarial assumptions used to determine net periodic pension cost during the year were as follows:

	January 2, 2022		January 3, 2021		December 29, 2019	
	Non-U.S.	U.S.	Non-U.S.	U.S.	Non-U.S.	U.S.
Discount rate	0.92 %	2.21 %	1.34 %	3.01 %	2.07 %	4.05 %
Rate of compensation increase	2.78 %	None	3.36 %	None	3.48 %	None
Expected rate of return on assets	2.10 %	7.25 %	2.20 %	7.25 %	5.30 %	7.25 %

The following table provides a breakdown of the non-U.S. benefit obligations and fair value of assets for pension plans that have benefit obligations in excess of plan assets:

	January 2, 2022	January 3, 2021
	(In thousands)	
Pension Plans with Projected Benefit Obligations in Excess of Plan Assets		
Projected benefit obligations	$ 191,285	$ 226,890
Fair value of plan assets	—	—
Pension Plans with Accumulated Benefit Obligations in Excess of Plan Assets		
Accumulated benefit obligations	$ 189,349	$ 224,499
Fair value of plan assets	—	—

Assets of the defined benefit pension plans are primarily equity and debt securities. Asset allocations as of January 2, 2022 and January 3, 2021, and target asset allocations for fiscal year 2022 are as follows:

	Target Allocation		Percentage of Plan Assets at			
	January 1, 2023		January 2, 2022		January 3, 2021	
Asset Category	**Non-U.S.**	**U.S.**	**Non-U.S.**	**U.S.**	**Non-U.S.**	**U.S.**
Equity securities	0-5%	40-60%	— %	46 %	— %	45 %
Debt securities	0-5%	40-60%	— %	54 %	88 %	55 %
Other	95-100%	0-10%	100 %	— %	12 %	— %
Total	100 %	100 %	100 %	100 %	100 %	100 %

The Company maintains target allocation percentages among various asset classes based on investment policies established for the pension plans which are designed to maximize the total rate of return (income and appreciation) after inflation within the limits of prudent risk taking, while providing for adequate near-term liquidity for benefit payments.

The Company's expected rate of return on assets assumptions are derived from management's estimates, as well as other information compiled by management, including studies that utilize customary procedures and techniques. The studies include a review of anticipated future long-term performance of individual asset classes and consideration of the appropriate asset allocation strategy given the anticipated requirements of the plans to determine the average rate of earnings expected on the funds invested to provide for the pension plans benefits. While the study gives appropriate consideration to recent fund performance and historical returns, the assumption is primarily a long-term, prospective rate.

The Company's discount rate assumptions are derived from a range of factors, including a yield curve for certain plans, composed of the rates of return on high-quality fixed-income corporate bonds available at the measurement date and the related expected duration for the obligations, and a bond matching approach for certain plans.

The target allocations for plan assets are listed in the above table. Equity securities primarily include investments in large-cap and mid-cap companies located in the United States and abroad, and equity index funds. Debt securities include corporate bonds of companies from diversified industries, high-yield bonds, and U.S. government securities. Other types of investments include investments in non-U.S. government index linked bonds, multi-strategy hedge funds and venture capital funds that follow several different strategies.

The fair value of the Company's pension plan assets as of January 2, 2022 and January 3, 2021 by asset category, classified in the three levels of inputs described in Note 20 to the consolidated financial statements are as follows:

		Fair Value Measurements at January 2, 2022 Using:		
	Total Carrying Value at January 2, 2022	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
		(In thousands)		
Cash	$ 22,241	$ 22,241	$ —	$ —
Equity securities:				
U.S. large-cap	91,601	91,601	—	—
International large-cap value	29,803	29,803	—	—
Emerging markets growth	12,603	12,603	—	—
Foreign real estate funds	—	—	—	—
Fixed income securities:				
Corporate and U.S. debt instruments	133,727	41,725	92,002	—
Short-term corporate bonds	15,650	—	15,650	—
Other types of investments:				
Foreign liability driven instrument	165,680	—	—	165,680
Total assets measured at fair value	$ 471,305	$ 197,973	$ 107,652	$ 165,680

		Fair Value Measurements at January 3, 2021 Using:		
	Total Carrying Value at January 3, 2021	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
		(In thousands)		
Cash	$ 6,363	$ 6,363	$ —	$ —
Equity Securities:				
U.S. large-cap	78,234	78,234	—	—
International large-cap value	28,315	28,315	—	—
Emerging markets growth	13,594	13,594	—	—
Foreign real estate funds	23,259	—	—	23,259
Fixed income securities:				
Non-U.S. Treasury Securities	106,315	—	106,315	—
Corporate and U.S. debt instruments	140,349	43,500	96,849	—
Corporate bonds	35,816	—	35,816	—
High yield bond funds	2,954	2,954	—	—
Other types of investments:				
Non-U.S. government index linked bonds	38,231	—	38,231	—
Total assets measured at fair value	$ 473,430	$ 172,960	$ 277,211	$ 23,259

Valuation Techniques: Valuation techniques utilized need to maximize the use of observable inputs and minimize the use of unobservable inputs. There have been no changes in the methodologies utilized at January 2, 2022 compared to January 3, 2021. The following is a description of the valuation techniques utilized to measure the fair value of the assets shown in the table above.

Equity Securities: Shares of registered investment companies that are publicly traded are categorized as Level 1 assets; they are valued at quoted market prices that represent the net asset value of the fund. These instruments have active markets.

Equity index funds are mutual funds that are not publicly traded and are comprised primarily of underlying equity securities that are publicly traded on exchanges. Price quotes for the assets held by these funds are readily observable and available. Equity index funds are categorized as Level 2 assets.

Fixed Income Securities: Fixed income mutual funds that are publicly traded are valued at quoted market prices that represent the net asset value of securities held by the fund and are categorized as Level 1 assets.

Fixed income index funds that are not publicly traded are stated at net asset value as determined by the issuer of the fund based on the fair value of the underlying investments and are categorized as Level 2 assets.

Individual fixed income bonds are categorized as Level 2 assets except where sufficient quoted prices exist in active markets, in which case such securities are categorized as Level 1 assets. These securities are valued using third-party pricing services. These services may use, for example, model-based pricing methods that utilize observable market data as inputs. Broker dealer bids or quotes of securities with similar characteristics may also be used.

Other Types of Investments: Non-U.S. government index link bond funds are not publicly traded and are stated at net asset value as determined by the issuer of the fund based on the fair value of the underlying investments. Underlying investments consist of bonds in which payment of income on the principal is related to a specific price index and are categorized as Level 2 assets.

Hedge funds, private equity funds, foreign real estate funds and venture capital funds are valued at fair value by using the net asset values provided by the investment managers and are updated, if necessary, using analytical procedures, appraisals, public market data and/or inquiry of the investment managers. The net asset values are determined based upon the fair values of the underlying investments in the funds. These other investments invest primarily in readily available marketable securities and allocate gains, losses, and expense to the investor based on the ownership percentage as described in the fund agreements. They are categorized as Level 3 assets.

In September 2021, the Company’s UK pension scheme executed a buy-in contract with Phoenix Life LTD ("Phoenix"), under which the Company made an upfront payment to Phoenix in exchange for Phoenix agreeing to make the benefit payments under the Company’s UK pension scheme due to specified participants and their beneficiaries, thus transferring most of the investment and longevity risk associated with the covered participants and beneficiaries from the Company to Phoenix. This buy-in contract can be considered a liability-driven investment ("LDI") solution that hedges not only the investment risk but also the longevity risk under the Company’s UK pension scheme. Like other LDI solutions, it does not eliminate ongoing administrative costs.

The Company's policy is to recognize significant transfers between levels at the actual date of the event.

A reconciliation of the beginning and ending Level 3 assets for fiscal years 2021, 2020 and 2019 is as follows:

	Fair Value Measurements Using Significant Unobservable Inputs (Level 3):			
	Foreign liability driven investment	Foreign Real Estate Funds	Multi-strategy Hedge Funds	Total
	(In thousands)			
Balance at December 30, 2018	$ —	$ 22,196	$ 16,934	$ 39,130
Sales	—	—	(15,586)	(15,586)
Realized gains	—	—	4,175	4,175
Unrealized gains (losses)	—	492	(3,802)	(3,310)
Balance at December 29, 2019	—	22,688	1,721	24,409
Sales	—	—	(1,721)	(1,721)
Unrealized gains	—	571	—	571
Balance at January 3, 2021	—	23,259	—	23,259
Sales	—	(23,115)	—	(23,115)
Realized losses	—	(226)	—	(226)
Realized gains	—	82	—	82
Purchases	165,680	—	—	165,680
Balance at January 2, 2022	$ 165,680	$ —	$ —	$ 165,680

With respect to plans outside of the United States, the Company expects to contribute $7.0 million in the aggregate during fiscal year 2022. During fiscal years 2021, 2020 and 2019, the Company contributed $6.9 million, $7.5 million and $8.2 million in the aggregate, respectively, to pension plans outside of the United States. During fiscal year 2021, the Company contributed $20.0 million to its defined benefit pension plan in the United States for the plan year 2019.

The following benefit payments, which reflect expected future service, as appropriate, are expected to be paid as follows:

	Non-U.S.	U.S.
	(In thousands)	
2022	$ 12,538	$ 19,419
2023	12,791	19,459
2024	13,461	19,427
2025	13,504	19,368
2026	13,898	19,184
2027-2031	68,663	90,272

The Company also sponsors a supplemental executive retirement plan to provide senior management with benefits in excess of normal pension benefits. Effective July 31, 2000, this plan was closed to new entrants. At January 2, 2022 and January 3, 2021, the projected benefit obligations were $24.1 million and $25.9 million, respectively. Assets with a fair value of $1.6 million and $1.9 million, segregated in a trust (which is included in marketable securities and investments on the consolidated balance sheets), were available to meet this obligation as of January 2, 2022 and January 3, 2021, respectively. Pension expenses and income for this plan netted to expense of $0.2 million in fiscal year 2021, expense of $2.1 million in fiscal year 2020 and expense of $4.8 million in fiscal year 2019.

Postretirement Medical Plans: The Company provides healthcare benefits for eligible retired U.S. employees under a comprehensive major medical plan or under health maintenance organizations where available. Eligible U.S. employees qualify for retiree health benefits if they retire directly from the Company and have at least ten years of service. Generally, the major medical plan pays stated percentages of covered expenses after a deductible is met and takes into consideration payments by other group coverage and by Medicare. The plan requires retiree contributions under most circumstances and has provisions for cost-sharing charges. Effective January 1, 2000, this plan was closed to new hires. For employees retiring after 1991, the Company has capped its medical premium contribution based on employees' years of service. The Company funds the amount allowable under a 401(h) provision in the Company's defined benefit pension plan. Assets of the plan are primarily equity and

debt securities and are available only to pay retiree health benefits. The costs of these plans are not material and the net assets in the plans totaled $20.7 million and $19.0 million at January 2, 2022 and January 3, 2021, respectively.

Deferred Compensation Plans: During fiscal year 1998, the Company implemented a nonqualified deferred compensation plan that provides benefits payable to officers and certain key employees or their designated beneficiaries at specified future dates, or upon retirement or death. The plan was amended to eliminate deferral elections, with the exception of Company 401(k) excess contributions for eligible participants, for plan years beginning January 1, 2011. Benefit payments under the plan are funded by contributions from participants, and for certain participants, contributions by the Company. The obligations related to the deferred compensation plan totaled $0.3 million and $0.6 million as of January 2, 2022 and January 3, 2021, respectively.

Note 16: Contingencies

The Company is conducting a number of environmental investigations and remedial actions at current and former locations of the Company and, along with other companies, has been named a potentially responsible party ("PRP") for certain waste disposal sites. The Company accrues for environmental issues in the accounting period that the Company's responsibility is established and when the cost can be reasonably estimated. The Company has accrued $11.9 million and $12.9 million as of January 2, 2022 and January 3, 2021, respectively, in accrued expenses and other current liabilities, which represents its management's estimate of the cost of the remediation of known environmental matters, and does not include any potential liability for related personal injury or property damage claims. The Company's environmental accrual is not discounted and does not reflect the recovery of any material amounts through insurance or indemnification arrangements. The cost estimates are subject to a number of variables, including the stage of the environmental investigations, the magnitude of the possible contamination, the nature of the potential remedies, possible joint and several liability, the time period over which remediation may occur, and the possible effects of changing laws and regulations. For sites where the Company has been named a PRP, management does not currently anticipate any additional liability to result from the inability of other significant named parties to contribute. The Company expects that the majority of such accrued amounts could be paid out over a period of up to ten years. As assessment and remediation activities progress at each individual site, these liabilities are reviewed and adjusted to reflect additional information as it becomes available. There have been no environmental problems to date that have had, or are expected to have, a material adverse effect on the Company's consolidated financial statements. While it is possible that a loss exceeding the amounts recorded in the consolidated financial statements may be incurred, the potential exposure is not expected to be materially different from those amounts recorded.

The Company is subject to various claims, legal proceedings and investigations covering a wide range of matters that arise in the ordinary course of its business activities. Although the Company has established accruals for potential losses that it believes are probable and reasonably estimable, in the opinion of the Company's management, based on its review of the information available at this time, the total cost of resolving these contingencies at January 2, 2022 should not have a material adverse effect on the Company's consolidated financial statements. However, each of these matters is subject to uncertainties, and it is possible that some of these matters may be resolved unfavorably to the Company.

Note 17: Stock Plans

Stock-Based Compensation:

The Company's 2019 Incentive Plan (the "2019 Plan") authorizes the issuance of stock options, stock appreciation rights, restricted stock, restricted stock units, other stock-based awards and cash awards as part of the Company's compensation programs. The 2019 Plan replaced the Company's 2009 Incentive Plan (the "2009 Plan"). Upon shareholder approval of the 2019 Plan, 6.25 million shares of the Company's common stock, as well as shares of the Company's common stock previously granted under the 2009 Plan that expire, terminate or are otherwise surrendered, canceled, forfeited or repurchased by the Company at their original issuance price subject to a contractual repurchase right, became available for grant under the 2019 Plan. Awards granted under the 2009 Plan prior to its expiration remain outstanding. As part of the Company's compensation programs, the Company also offers shares of its common stock under its Employee Stock Purchase Plan.

The following table summarizes total pre-tax compensation expense recognized related to the Company's stock options, restricted stock, restricted stock units, performance restricted stock units, performance units and stock grants, included in the Company's consolidated statements of operations for fiscal years 2021, 2020 and 2019:

	January 2, 2022	January 3, 2021	December 29, 2019
	(In thousands)		
Cost of product and service revenue	$ 3,706	$ 1,388	$ 1,620
Research and development expenses	2,759	1,228	1,061
Selling, general and administrative expenses	26,315	26,510	28,833
Total stock-based compensation expense	$ 32,780	$ 29,126	$ 31,514

The total income tax benefit recognized in the consolidated statements of operations for stock-based compensation was $14.0 million in fiscal year 2021, $17.2 million in fiscal year 2020 and $11.6 million in fiscal year 2019. Stock-based compensation costs capitalized as part of inventory were immaterial in all periods presented.

Stock Options: The Company has granted options to purchase common shares at prices equal to the market price of the common shares on the date the option is granted. Conditions of vesting are determined at the time of grant. Options are generally exercisable in equal annual installments over a period of three years, and will generally expire seven years after the date of grant. Options replaced in association with business combination transactions are generally issued with the same terms of the respective plans under which they were originally issued.

The fair value of each option grant is estimated using the Black-Scholes option pricing model. The fair value is then amortized on a straight-line basis over the requisite service periods of the awards, which is generally the vesting period. Use of a valuation model requires management to make certain assumptions with respect to selected model inputs. Expected volatility was calculated based on the historical and implied volatility of the Company's stock. The average expected life was based on the contractual term of the option and historic exercise experience. The risk-free interest rate is based on United States Treasury zero-coupon issues with a remaining term equal to the expected life assumed at the date of grant. The Company's weighted-average assumptions used in the Black-Scholes option pricing model were as follows for the fiscal years ended:

	January 2, 2022	January 3, 2021	December 29, 2019
Risk-free interest rate	0.9 %	0.9 %	2.5 %
Expected dividend yield	0.2 %	0.3 %	0.3 %
Expected lives	5 years	5 years	5 years
Expected stock volatility	27.3 %	23.8 %	22.8 %

The following table summarizes stock option activity for the fiscal year ended January 2, 2022:

	Number of Shares	Weighted-Average Exercise Price
	(Shares in thousands)	
Outstanding at beginning of year	961	$ 74.40
Granted	625	159.65
Exercised	(359)	70.44
Forfeited	(35)	107.70
Outstanding at end of year	1,192	$ 119.33
Exercisable at end of year	383	$ 70.27

The aggregate intrinsic value for stock options outstanding at January 2, 2022 was $97.4 million with a weighted-average remaining contractual term of 5.1 years. The aggregate intrinsic value for stock options exercisable at January 2, 2022 was $50.1 million with a weighted-average remaining contractual term of 3.0 years. At January 2, 2022, there were 1.2 million stock options that were vested and expected to vest in the future, with an aggregate intrinsic value of $97.4 million and a weighted-average remaining contractual term of 5.1 years.

The weighted-average grant-date fair value of options granted during fiscal years 2021, 2020 and 2019 was $40.00, $18.98, and $22.63 per share, respectively. The total intrinsic value of options exercised during fiscal years 2021, 2020 and 2019 was $32.4 million, $51.1 million, and $19.1 million, respectively. Cash received from option exercises for fiscal years 2021, 2020 and 2019 was $25.1 million, $37.7 million, and $19.7 million, respectively. The total compensation expense recognized related to the Company's outstanding options was $6.3 million in fiscal year 2021, $3.6 million in fiscal year 2020 and $6.7 million in fiscal year 2019.

There was $22.5 million of total unrecognized compensation cost related to nonvested stock options granted as of January 2, 2022. This cost is expected to be recognized over a weighted-average period of 2.5 years.

Restricted Stock Awards: The Company has awarded shares of restricted stock and restricted stock units to certain employees and non-employee directors at no cost to them, which cannot be sold, assigned, transferred or pledged during the restriction period. The restricted stock and restricted stock units vest through the passage of time, assuming continued employment. The fair value of the award at the time of the grant is expensed on a straight line basis primarily in selling, general and administrative expenses over the vesting period, which is generally 3 years. Recipients of the restricted stock have the right to vote such shares and receive dividends.

The following table summarizes restricted stock award activity for the fiscal year ended January 2, 2022:

	Number of Shares	Weighted-Average Grant-Date Fair Value
	(Shares in thousands)	
Nonvested at beginning of year	296	$ 85.67
Granted	508	159.60
Vested	(140)	82.93
Forfeited	(27)	99.56
Nonvested at end of year	637	$ 144.62

The fair value of restricted stock awards vested during fiscal years 2021, 2020 and 2019 was $11.6 million, $14.0 million, and $12.0 million, respectively. The total compensation expense recognized related to the restricted stock awards was $18.8 million in fiscal year 2021, $10.8 million in fiscal year 2020 and $12.7 million in fiscal year 2019.

As of January 2, 2022, there was $72.3 million of total unrecognized compensation cost, related to nonvested restricted stock awards. That cost is expected to be recognized over a weighted-average period of 1.9 years.

Employee Stock Purchase Plan:

In April 1999, the Company's shareholders approved the 1998 Employee Stock Purchase Plan. In April 2005, the Compensation and Benefits Committee of the Company's Board of Directors (the "Board") voted to amend the Employee Stock Purchase Plan, effective July 1, 2005, whereby participating employees have the right to purchase common stock at a price equal to 95% of the closing price on the last day of each six-month offering period. The number of shares which an employee may purchase, subject to certain aggregate limits, is determined by the employee's voluntary contribution, which may not exceed 10% of the employee's base compensation. During fiscal year 2021, the Company issued 21,578 shares of common stock under the Company's Employee Stock Purchase Plan at a weighted-average price of $168.11 per share. During fiscal year 2020, the Company issued 38,727 shares under this plan at a weighted-average price of $105.23 per share. During fiscal year 2019, the Company issued 33,843 shares under this plan at a weighted-average price of $82.25 per share. At January 2, 2022 there remains available for sale to employees an aggregate of 0.8 million shares of the Company's common stock out of the 5.0 million shares authorized by shareholders for issuance under this plan.

Note 18: Stockholders' Equity

Comprehensive Income:

The components of accumulated other comprehensive (loss) income consisted of the following:

	Foreign Currency Translation Adjustment, net of tax	Unrecognized Prior Service Costs, net of tax	Unrealized (Losses) Gains on Securities, net of tax	Accumulated Other Comprehensive Income (Loss)
		(In thousands)		
Balance, December 30, 2018	$ (176,459)	$ 245	$ (267)	$ (176,481)
Current year change	(23,978)	807	6	(23,165)
Balance, December 29, 2019	(200,437)	1,052	(261)	(199,646)
Current year change	169,500	(1,799)	(16)	167,685
Balance, January 3, 2021	(30,937)	(747)	(277)	(31,961)
Current year change	(130,873)	(95)	237	(130,731)
Balance, January 2, 2022	$ (161,810)	$ (842)	$ (40)	$ (162,692)

During fiscal years 2021, 2020 and 2019, pre-tax pension credit (cost) of $0.1 million, $(1.8) million, and $0.8 million, respectively, was reclassified from accumulated other comprehensive income into selling, general and administrative expenses as a component of net periodic pension cost.

Stock Repurchases:

On July 31, 2020, the Board authorized the Company to repurchase shares of common stock for an aggregate amount up to $250.0 million under a stock repurchase program (the "Repurchase Program"). The Repurchase Program will expire on July 27, 2022 unless terminated earlier by the Board and may be suspended or discontinued at any time. During fiscal year 2021, the Company repurchased 433,000 shares of common stock under the Repurchase Program at an aggregate cost of $62.6 million. As of January 2, 2022, $187.4 million remained available for aggregate repurchases of shares under the Repurchase Program.

In addition, the Board has authorized the Company to repurchase shares of common stock to satisfy minimum statutory tax withholding obligations in connection with the vesting of restricted stock awards and restricted stock unit awards granted pursuant to the Company's equity incentive plans and to satisfy obligations related to the exercise of stock options made pursuant to the Company's equity incentive plans. During fiscal year 2021, the Company repurchased 71,248 shares of common stock for this purpose at an aggregate cost of $10.5 million. During fiscal year 2020, the Company repurchased 72,251 shares of common stock for this purpose at an aggregate cost of $6.9 million. During fiscal year 2019, the Company repurchased 68,536 shares of common stock for this purpose at an aggregate cost of $6.3 million. The repurchased shares have been reflected as additional authorized but unissued shares, with the payments reflected in common stock and capital in excess of par value.

Dividends:

The Board declared a regular quarterly cash dividend of $0.07 per share in each quarter of fiscal years 2021 and 2020. At January 2, 2022, the Company had accrued $8.8 million for a dividend declared in October 2021 for the fourth quarter of fiscal year 2021 that was paid in February 2022. On January 27, 2022, the Company announced that the Board had declared a quarterly dividend of $0.07 per share for the first quarter of fiscal year 2022 that will be payable in May 2022. In the future, the Board may determine to reduce or eliminate the Company's common stock dividend in order to fund investments for growth, repurchase shares or conserve capital resources.

Note 19: Derivatives and Hedging Activities

The Company uses derivative instruments as part of its risk management strategy only, and includes derivatives utilized as economic hedges that are not designated as hedging instruments. By nature, all financial instruments involve market and credit risks. The Company enters into derivative instruments with major investment grade financial institutions and has policies to monitor the credit risk of those counterparties. The Company does not enter into derivative contracts for trading or other speculative purposes, nor does the Company use leveraged financial instruments. Approximately 60% of the Company's

business is conducted outside of the United States, generally in foreign currencies. As a result, fluctuations in foreign currency exchange rates can increase the costs of financing, investing and operating the business.

In the ordinary course of business, the Company enters into foreign exchange contracts for periods consistent with its committed exposures to mitigate the effect of foreign currency movements on transactions denominated in foreign currencies. The intent of these economic hedges is to offset gains and losses that occur on the underlying exposures from these currencies, with gains and losses resulting from the forward currency contracts that hedge these exposures. Transactions covered by hedge contracts include intercompany and third-party receivables and payables. The contracts are primarily in European and Asian currencies, have maturities that do not exceed 12 months, have no cash requirements until maturity, and are recorded at fair value on the Company's consolidated balance sheets. The unrealized gains and losses on the Company's foreign currency contracts are recognized immediately in interest and other expense, net. The cash flows related to the settlement of these hedges are included in cash flows from operating activities within the Company's consolidated statements of cash flows.

Principal hedged currencies include the Australian Dollar, British Pound, Euro, Indian Rupee, Singapore Dollar and Swedish Krona. The Company held forward foreign exchange contracts, designated as economic hedges, with U.S. dollar equivalent notional amounts totaling $371.9 million at January 2, 2022, $808.0 million at January 3, 2021, and $277.6 million at December 29, 2019, and the fair value of these foreign currency derivative contracts was insignificant. The gains and losses realized on these foreign currency derivative contracts are not material. The duration of these contracts was generally 30 days or less during each of fiscal years 2021, 2020 and 2019.

In addition, in connection with certain intercompany loan agreements utilized to finance its acquisitions and stock repurchase program, the Company enters into forward foreign exchange contracts intended to hedge movements in foreign exchange rates prior to settlement of such intercompany loans denominated in foreign currencies. The Company records these hedges at fair value on the Company's consolidated balance sheets. The unrealized gains and losses on these hedges, as well as the gains and losses associated with the remeasurement of the intercompany loans, are recognized immediately in interest and other expense, net. The cash flows related to the settlement of these hedges are included in cash flows from financing activities within the Company's consolidated statements of cash flows.

The outstanding forward exchange contracts designated as economic hedges, which were intended to hedge movements in foreign exchange rates prior to the settlement of certain intercompany loan agreements, included combined U.S. Dollar notional amounts of $360.2 million as of January 2, 2022, combined Euro notional amounts of €33.4 million and combined U.S. Dollar notional amounts of $499.0 million as of January 3, 2021, and combined Euro notional amounts of €105.8 million and combined U.S. Dollar notional amounts of $5.6 million as of December 29, 2019. The net gains and losses on these derivatives, combined with the gains and losses on the remeasurement of the hedged intercompany loans were not material.

During fiscal year 2018, the Company designated a portion of the 2026 Notes to hedge its investments in certain foreign subsidiaries. Unrealized translation adjustments from a portion of the 2026 Notes were included in the foreign currency translation component of AOCI, which offsets translation adjustments on the underlying net assets of foreign subsidiaries. The cumulative translation gains or losses will remain in AOCI until the foreign subsidiaries are liquidated or sold. As of January 2, 2022, the total notional amount of the 2026 Notes that was designated to hedge investments in foreign subsidiaries was €497.2 million. The unrealized foreign exchange (gains) losses recorded in AOCI related to the net investment hedge were $(33.2) million, $49.6 million and $(4.9) million during the fiscal years 2021, 2020 and 2019, respectively.

During fiscal year 2019, the Company entered into a cross-currency swap designated as a net investment hedge to hedge the Euro currency exposure of the Company's net investment in certain foreign subsidiaries. This agreement is a contract to exchange fixed-rate payments in one currency for fixed-rate payments in another currency. Changes in the fair value of this swap are recorded in equity as a component of AOCI in the same manner as foreign currency translation adjustments. In assessing the effectiveness of this hedge, the Company uses a method based on changes in spot rates to measure the impact of the foreign currency exchange rate fluctuations on both its foreign subsidiary net investment and the related swap. Under this method, changes in the fair value of the hedging instrument other than those due to changes in the spot rate are initially recorded in AOCI as a translation adjustment, and then are amortized into other (income) expense, net in the consolidated statement of operations using a systematic and rational method over the instrument's term. Changes in the fair value associated with the effective portion (i.e. those changes due to the spot rate) are recorded in AOCI as a translation adjustment and are released and recognized in earnings only upon the sale or liquidation of the hedged net investment. The cross-currency swap had an initial notional value of €197.4 million or $220.0 million and matured on November 15, 2021. Interest on the cross-currency swap was payable semi-annually, in Euro, on May 15th and November 15th of each year based on the Euro notional value and a fixed rate of 2.47%. The Company received interest in U.S. dollars on May 15th and November 15th of each year based on the U.S. dollar equivalent of the Euro notional value and a fixed rate of 5.00%.

During fiscal year 2020, the Company entered into forward foreign exchange contracts, designated as cash flow hedges, to hedge the 2021 Notes. The effective portion of the gain or loss of the cash flow hedges were reported as a component of other comprehensive income and reclassified into earnings in the same period during which the hedged transaction affected earnings. During the second quarter of fiscal year 2021, the Company redeemed all of its outstanding 2021 Notes and settled the forward foreign exchange contracts that were designated as cash flow hedges. The foreign exchange losses (gains) recorded in earnings related to the cash flow hedges were $9.5 million and $(29.3) million during the fiscal years 2021 and 2020, respectively.

During fiscal year 2021, the Company entered into forward foreign exchange contracts, designated as cash flow hedges, to hedge a portion of the 2026 Notes. The effective portion of the gain or loss of the cash flow hedges will be reported as a component of other comprehensive income and reclassified into earnings in the same period during which the hedged transaction affects earnings. During the fourth quarter of fiscal year 2021, the Company settled the forward foreign exchange contracts that were designated as cash flow hedges. The foreign exchange loss recorded in earnings related to the cash flow hedges was $8.7 million during fiscal year 2021.

During fiscal year 2021, the Company entered into two interest rate swaption agreements (together, the "Swaptions") with expiration dates of September 30, 2021 in anticipation of issuing notes to fund the acquisition of BioLegend. The first Swaption had a term of 2 months and hedged an anticipated 10-year note offering, with a notional value of $500.0 million. The second Swaption had a term of 2 months and hedged an anticipated 7-year note offering, with a notional value of $500.0 million. The Company designated the Swaptions as qualifying hedging instruments and accounted for these derivatives as cash flow hedges. On September 8, 2021, the Company sold both Swaptions, and as a result, recognized a loss of $8.2 million in interest and other expense, net during the fiscal year 2021. The Company also recorded other comprehensive income of $3.8 million, which will be amortized to interest and other expense, net over the 7 and 10 year terms, respectively, of the related permanent financing.

The Company does not expect any material net pre-tax gains or losses to be reclassified from accumulated other comprehensive (loss) income into interest and other expense, net within the next twelve months.

Note 20: Fair Value Measurements

Financial instruments that potentially subject the Company to concentrations of credit risk consist principally of cash equivalents, derivatives, marketable securities and accounts receivable. The Company believes it had no significant concentrations of credit risk as of January 2, 2022.

The Company's financial assets and liabilities carried at fair value are primarily comprised of marketable securities, derivative contracts used to hedge the Company's currency risk, and acquisition related contingent consideration. The Company has not elected to measure any additional financial instruments or other items at fair value.

Valuation Hierarchy: The following summarizes the three levels of inputs required to measure fair value. For Level 1 inputs, the Company utilizes quoted market prices as these instruments have active markets. For Level 2 inputs, the Company utilizes quoted market prices in markets that are not active, broker or dealer quotations, or utilizes alternative pricing sources with reasonable levels of price transparency. For Level 3 inputs, the Company utilizes unobservable inputs based on the best information available, including estimates by management primarily based on information provided by third-party fund managers, independent brokerage firms and insurance companies. A financial asset's or liability's classification within the hierarchy is determined based on the lowest level input that is significant to the fair value measurement. In determining fair value, the Company utilizes valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs to the extent possible.

The following tables show the assets and liabilities carried at fair value measured on a recurring basis as of January 2, 2022 and January 3, 2021 classified in one of the three classifications described above:

		Fair Value Measurements at January 2, 2022 Using:		
	Total Carrying Value at January 2, 2022	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
		(In thousands)		
Marketable securities	$ 53,073	$ 53,073	$ —	$ —
Foreign exchange derivative assets	3,765	—	3,765	—
Foreign exchange derivative liabilities	(3,463)	—	(3,463)	—
Contingent consideration	(57,996)	—	—	(57,996)

	Total Carrying Value at January 3, 2021	Fair Value Measurements at January 3, 2021 Using: Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
		(In thousands)		
Marketable securities	$ 2,154	$ 2,154	$ —	$ —
Foreign exchange derivative assets	31,248	—	31,248	—
Foreign exchange derivative liabilities	(21,413)	—	(21,413)	—
Contingent consideration	(2,953)	—	—	(2,953)

Level 1 and Level 2 Valuation Techniques: The Company's Level 1 and Level 2 assets and liabilities are comprised of investments in equity and fixed-income securities as well as derivative contracts. For financial assets and liabilities that utilize Level 1 and Level 2 inputs, the Company utilizes both direct and indirect observable price quotes, including common stock price quotes, foreign exchange forward prices and bank price quotes. Below is a summary of valuation techniques for Level 1 and Level 2 financial assets and liabilities.

Marketable securities: Include equity and fixed-income securities measured at fair value using the quoted market prices in active markets at the reporting date.

Foreign exchange derivative assets and liabilities: Include foreign exchange derivative contracts that are valued using quoted forward foreign exchange prices at the reporting date. The Company's foreign exchange derivative contracts are subject to master netting arrangements that allow the Company and its counterparties to net settle amounts owed to each other. Derivative assets and liabilities that can be net settled under these arrangements have been presented in the Company's consolidated balance sheet on a net basis and are recorded in other assets. As of both January 2, 2022 and January 3, 2021, none of the master netting arrangements involved collateral.

Level 3 Valuation Techniques: The Company's Level 3 liabilities are comprised of contingent consideration related to acquisitions. For liabilities that utilize Level 3 inputs, the Company uses significant unobservable inputs. Below is a summary of valuation techniques for Level 3 liabilities.

Contingent consideration: Contingent consideration is measured at fair value at the acquisition date using projected milestone dates, discount rates, probabilities of success and projected revenues (for revenue-based considerations). Projected risk-adjusted contingent payments are discounted back to the current period using a discounted cash flow model.

The fair values of contingent consideration are calculated on a quarterly basis based on a collaborative effort of the Company's regulatory, research and development, operations, finance and accounting groups, as appropriate. Potential valuation adjustments are made as additional information becomes available, including the progress towards achieving proof of concept, regulatory approvals and revenue targets as compared to initial projections, the impact of market competition and market landscape shifts from non-invasive prenatal testing products, with the impact of such adjustments being recorded in the consolidated statements of operations.

As of January 2, 2022, the Company may have to pay contingent consideration, related to acquisitions with open contingency periods that are substantially all revenue-based consideration, of up to $108.4 million. The expected maximum earnout period for acquisitions with open contingency period does not exceed 6.9 years from January 2, 2022, and the remaining weighted average expected earnout period at January 2, 2022 was 5.4 years.

A reconciliation of the beginning and ending Level 3 net liabilities for contingent consideration is as follows:

	(In thousands)
Balance at December 30, 2018	$ (69,661)
Additions	(12,734)
Amounts paid and foreign currency translation	50,795
Change in fair value (included within selling, general and administrative expenses)	(3,881)
Balance at December 29, 2019	(35,481)
Amounts paid and foreign currency translation	23,701
Change in fair value (included within selling, general and administrative expenses)	8,827
Balance at January 3, 2021	(2,953)
Additions	(57,431)
Amounts paid and foreign currency translation	5,507
Change in fair value (included within selling, general and administrative expenses)	(3,119)
Balance at January 2, 2022	$ (57,996)

The carrying amounts of cash and cash equivalents, accounts receivable, accounts payable and accrued expenses approximate fair value due to the short-term maturities of these assets and liabilities. If measured at fair value, cash and cash equivalents would be classified as Level 1.

The Company's outstanding senior unsecured notes had an aggregate fair value of $4,612.8 million and aggregate carrying value of $4,479.5 million as of January 2, 2022. The Company's outstanding senior unsecured notes had an aggregate fair value of $1,984.3 million and aggregate carrying value of $1,811.5 million as of January 3, 2021. The fair values of the outstanding senior unsecured notes were estimated using market quotes from brokers and were based on current rates offered for similar debt, which are Level 2 measurements.

The Company’s other debt facilities, including the Company's senior revolving credit facility and term loan facility, had an aggregate carrying value of $504.5 million and $179.1 million as of January 2, 2022 and January 3, 2021, respectively. The carrying value approximates fair value and were classified as Level 2.

Note 21: Leases

Lessee Disclosures

The Company leases certain property and equipment under operating and finance leases. The Company's leases have remaining lease terms of less than 1 year to 30 years, some of which include options to extend the lease for up to 5 years, and some of which include options to terminate the lease within 1 year. Finance leases are not material to the Company.

The components of lease expense were as follows:

	January 2, 2022	January 3, 2021	December 29, 2019
		(In thousands)	
Lease Cost:			
Operating lease cost	$ 54,639	$ 56,977	61,205

Supplemental cash flow information related to leases was as follows:

	January 2, 2022	January 3, 2021	December 29, 2019
		(In thousands)	
Cash paid for amounts included in the measurement of lease liabilities:			
Operating cash flows from operating leases	$ 53,455	$ 47,427	$ 50,155
Right-of-use assets obtained in exchange for new lease obligations:			
Operating leases	$ 18,694	$ 5,048	$ 5,685

Supplemental balance sheet information related to leases was as follows:

	January 2, 2022	January 3, 2021
	(In thousands, except lease term and discount rate)	
Operating Leases:		
Operating lease right-of-use assets	$ 207,775	$ 207,236
Operating lease liabilities included in Accrued expenses and other current liabilities	$ 40,567	$ 40,330
Operating lease liabilities	185,359	188,402
Total operating lease liabilities	$ 225,926	$ 228,732
Weighted Average Remaining Lease Term in Years		
Operating leases	7.6	8.1
Weighted Average Remaining Discount Rate		
Operating leases	2.6%	2.9%

Lease costs from finance leases, short-term leases, variable lease costs and sub-lease income are not material.

Future payments of operating lease liabilities as of January 2, 2022 were as follows:

	(In thousands)
2022	$ 47,910
2023	38,072
2024	31,624
2025	27,899
2026	24,279
2027 and thereafter	73,967
Total lease payments	243,751
Less imputed interest	(17,825)
Total	$ 225,926

Lessor Disclosures

Certain of the Company's contracts require that it place its instrument at the customer's site and sell reagents to the customer. As the predominant component in these contracts are the sales of reagents, the Company accounts for the combined component under ASC 606 only when both of the following criteria are met: 1) the timing and pattern of transfer of the non-lease component or components and associated lease component are the same; and 2) the lease component, if accounted for separately, would be classified as an operating lease. When only one of the criteria is met, the Company accounts for the non-lease component under ASC 606 and the lease component under ASC 842. Profit or loss, interest income and aggregate net investment in sales-type leases that did not qualify for the practical expedient are not material to the Company.

Note 22: Industry Segment and Geographic Area Information

The Company discloses information about its operating segments based on the way that management organizes the segments within the Company for making operating decisions and assessing financial performance. The Company evaluates the performance of its operating segments based on revenue and operating income. Intersegment revenue and transfers are not significant. The accounting policies of the operating segments are the same as those described in Note 1.

The principal products and services of the Company's two operating segments are:

- *Discovery & Analytical Solutions*. Provides products and services targeted towards the life sciences and applied markets.
- *Diagnostics*. Develops diagnostics, tools and applications focused on clinically-oriented customers, especially within the reproductive health, emerging market diagnostics and applied genomics markets. The Diagnostics segment serves the diagnostics market.

The Company has included the expenses for its corporate headquarters, such as legal, tax, audit, human resources, information technology, and other management and compliance costs, as well as the activity related to the mark-to-market adjustment on postretirement benefit plans, as “Corporate” below. The Company has a process to allocate and recharge expenses to the reportable segments when these costs are administered or paid by the corporate headquarters based on the extent to which the segment benefited from the expenses. These amounts have been calculated in a consistent manner and are included in the Company’s calculations of segment results to internally plan and assess the performance of each segment for all purposes, including determining the compensation of the business leaders for each of the Company’s operating segments.

Revenue and operating income (loss) from continuing operations by operating segment are shown in the table below for the fiscal years ended:

	January 2, 2022	January 3, 2021	December 29, 2019
		(In thousands)	
Discovery & Analytical Solutions			
Product revenue	$ 1,358,484	$ 995,216	$ 1,054,862
Service revenue	776,746	720,587	691,299
Total revenue	2,135,230	1,715,803	1,746,161
Operating income from continuing operations[(1)]	189,798	183,471	238,331
Diagnostics			
Product revenue	1,970,618	1,783,509	962,180
Service revenue	961,321	283,433	175,332
Total revenue	2,931,939	2,066,942	1,137,512
Operating income from continuing operations[(1)(2)]	1,219,944	874,206	189,330
Corporate			
Operating loss from continuing operations[(3)]	(77,364)	(79,096)	(65,688)
Continuing Operations			
Product revenue	3,329,102	2,778,725	2,017,042
Service revenue	1,738,067	1,004,020	866,631
Total revenue	5,067,169	3,782,745	2,883,673
Operating income from continuing operations	1,332,378	978,581	361,973
Interest and other expense, net	52,492	72,217	124,831
Income from continuing operations before income taxes	$ 1,279,886	$ 906,364	$ 237,142

(1) Legal costs for significant litigation matters and settlements in the Company's Discovery & Analytical Solutions segment were $5.9 million and $2.2 million for fiscal years 2020 and 2019, respectively. Legal costs for significant litigation matters and settlements in the Company's Diagnostics segment were $0.1 million, $1.2 million and $0.1 million for fiscal years 2021, 2020 and 2019, respectively.

(2) Asset impairment in the Company's Diagnostics segment was $3.9 million and $7.9 million for fiscal years 2021 and 2020.

(3) Costs for significant environmental matters were $5.2 million for fiscal year 2020. Stock compensation expense from acceleration of executive compensation was $7.7 million for fiscal year 2019.

Additional information relating to the Company’s reporting segments is as follows for the three fiscal years ended January 2, 2022:

	Depreciation and Amortization Expense			Capital Expenditures		
	January 2, 2022	January 3, 2021	December 29, 2019	January 2, 2022	January 3, 2021	December 29, 2019
		(In thousands)			(In thousands)	
Discovery & Analytical Solutions	$ 141,261	$ 93,516	$ 74,445	$ 41,686	$ 20,217	$ 27,778
Diagnostics	214,178	149,738	136,476	57,206	55,236	46,863
Corporate	2,565	3,253	3,104	996	2,053	1,690
Continuing operations	$ 358,004	$ 246,507	$ 214,025	$ 99,888	$ 77,506	$ 76,331

	Total Assets		
	January 2, 2022	January 3, 2021	December 29, 2019
	(In thousands)		
Discovery & Analytical Solutions	$ 10,177,834	$ 3,600,860	$ 3,082,917
Diagnostics	4,692,816	4,228,943	3,368,598
Corporate	129,904	130,512	87,049
Total assets	$ 15,000,554	$ 7,960,315	$ 6,538,564

The following geographic area information for continuing operations includes revenue based on location of external customers for the three fiscal years ended January 2, 2022 and net long-lived assets based on physical location as of January 2, 2022 and January 3, 2021:

	Revenue		
	January 2, 2022	January 3, 2021	December 29, 2019
	(In thousands)		
U.S.	$ 2,046,914	$ 1,269,293	$ 974,187
International:			
China	670,084	492,283	581,688
United Kingdom	417,199	362,591	70,703
Other international	1,932,972	1,658,578	1,257,095
Total international	3,020,255	2,513,452	1,909,486
Total sales	$ 5,067,169	$ 3,782,745	$ 2,883,673

	Net Long-Lived Assets[(1)]	
	January 2, 2022	January 3, 2021
	(In thousands)	
U.S.	$ 343,723	$ 197,755
International:		
Germany	148,048	149,105
China	79,851	75,199
Other international	256,956	229,099
Total international	484,855	453,403
Total net long-lived assets	$ 828,578	$ 651,158

(1) Long-lived assets consist of property and equipment, net, operating lease right-of-use assets, rental equipment, software and other long-term assets.

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

Not applicable.

Item 9A. ***Controls and Procedures***

Conclusion Regarding the Effectiveness of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures as of January 2, 2022. The term "disclosure controls and procedures" as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), means controls and other procedures of a company that are designed to provide reasonable assurance that information required to be disclosed by the company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the Securities and Exchange Commission's rules and forms. Disclosure controls

and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company's management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives, and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on the evaluation of our disclosure controls and procedures as of January 2, 2022, our Chief Executive Officer and Chief Financial Officer concluded that, as of such date, our disclosure controls and procedures were effective at the reasonable assurance level.

There were no changes in our internal control over financial reporting during the fiscal quarter ended January 2, 2022, that 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 defined in Rule 13a-15(f) or 15d-15(f) promulgated under the Exchange Act as a process designed by, or under the supervision of, the company's principal executive and principal financial officers and effected by the company's board of directors, management and other personnel, 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, and includes those policies and procedures that:

- Pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of the assets of the company;

- 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

- 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. 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 January 2, 2022. In making this assessment, our management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission in the 2013 Internal Control-Integrated Framework. Our assessment of and conclusion on the effectiveness of internal control over financial reporting excluded the internal controls of Oxford Immunotec Global PLC, Nexcelom Bioscience Holdings, LLC, Immunodiagnostic Systems Holdings PLC, SIRION Biotech GmbH, Optimization Zorn Corporation, BioLegend, Inc. and Qognit, Inc., all of which were acquired during the fiscal year ended January 2, 2022, which were included in our fiscal year 2021 consolidated financial statements and represented approximately 4% of our total assets (exclusive of acquired intangible assets and goodwill) as of January 2, 2022 and 4% of our total revenues for the fiscal year ended January 2, 2022.

Based on this assessment, our management concluded that, as of January 2, 2022, our internal control over financial reporting was effective based on those criteria.

Our registered public accounting firm has issued an attestation report on our internal control over financial reporting. This report appears below.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of PerkinElmer, Inc.

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of PerkinElmer, Inc. and subsidiaries (the "Company") as of January 2, 2022, based on criteria established in *Internal Control—Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of January 2, 2022, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended January 2, 2022 of the Company and our report dated March 3, 2022 expressed an unqualified opinion on those financial statements.

As described in Management's Report on Internal Control over Financial Reporting, management excluded from its assessment the internal control over financial reporting at Oxford Immunotec Global PLC, Nexcelom Bioscience Holdings, LLC, Immunodiagnostic Systems Holdings PLC, SIRION Biotech GmbH, Optimization Zorn Corporation, BioLegend, Inc. and Qognit, Inc. (collectively "the Acquired Entities"), all of which were acquired during the year ended January 2, 2022 and whose financial statements constitute approximately 4% of total assets (exclusive of acquired intangible assets and goodwill) and 4% of total revenues of the consolidated financial statement amounts as of and for the year ended January 2, 2022. Accordingly, our audit did not include the internal control over financial reporting of the Acquired Entities.

Basis for Opinion

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

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

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

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

/s / DELOITTE & TOUCHE LLP

Boston, Massachusetts
March 3, 2022

Changes in Internal Control Over Financial Reporting

No change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) occurred during the fiscal quarter ended January 2, 2022 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting. We have not experienced any material impact to our internal controls over financial reporting despite the fact that many of our employees are working remotely due to the COVID-19 pandemic. We are continually monitoring and assessing the effect of the COVID-19 situation on our internal controls to minimize the impact on their design and operating effectiveness.

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

Not applicable.

Item 9C. ***Disclosure Regarding Foreign Jurisdictions that Prevent Inspections***

Not applicable.

PART III

Item 10. ***Directors, Executive Officers and Corporate Governance***

The information required to be disclosed by this Item pursuant to Item 401 of Regulation S-K with respect to our executive officers is contained in Part I of this annual report on Form 10-K under the caption, "Information About Our Executive Officers". The remaining information required to be disclosed by the Item pursuant to Item 401 and Item 407 of Regulation S-K is contained in the proxy statement for our annual meeting of stockholders to be held on April 26, 2022 under the captions "Proposal No. 1 Election of Directors" and "Information Relating to Our Board of Directors and Its Committees" and is incorporated in this annual report on Form 10-K by reference.

We have adopted a code of ethics, our Standards of Business Conduct, that applies to our principal executive officer, principal financial officer, principal accounting officer or controller, and persons performing similar functions. Our Standards of Business Conduct, as well as our corporate governance guidelines and the charters for the audit, compensation and benefits, nominating and corporate governance, executive and finance committees of our Board of Directors, are each accessible under the "Corporate Governance" heading of the "Investors" section of our website, http://www.perkinelmer.com. This information is also available in print to any stockholder who requests it, by writing to PerkinElmer, Inc., 940 Winter Street, Waltham, Massachusetts 02451, Attention: Investor Relations. We also intend to disclose in the same location on our website, any amendments to, or waivers from, our Standards of Business Conduct that are required to be disclosed pursuant to the disclosure requirements of Item 5.05 of Form 8-K.

Item 11. ***Executive Compensation***

The information required to be disclosed by this Item pursuant to Item 402 and Item 407(e) of Regulation S-K is contained in the proxy statement for our annual meeting of stockholders to be held on April 26, 2022 under the captions "Director Compensation," "Information Relating to Our Board of Directors and Its Committees—Compensation Committee Interlocks and Insider Participation," and "Executive Compensation," and is incorporated in this annual report on Form 10-K by reference.

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

The information required to be disclosed by this Item pursuant to Item 403 of Regulation S-K is contained in the proxy statement for our annual meeting of stockholders to be held on April 26, 2022 under the caption "Beneficial Ownership of Common Stock," and is incorporated in this annual report on Form 10-K by reference.

The information required to be disclosed by this Item pursuant to Item 201(d) of Regulation S-K is contained in the proxy statement for our annual meeting of stockholders to be held on April 26, 2022 under the caption "Executive Compensation—Equity Compensation Plan Information," and is incorporated in this annual report on Form 10-K by reference.

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

The information required to be disclosed by this Item pursuant to Item 404 of Regulation S-K is contained in the proxy statement for our annual meeting of stockholders to be held on April 26, 2022 under the caption "Information Relating to Our Board of Directors and Its Committees—Certain Relationships and Policies on Related Party Transactions," and is incorporated in this annual report on Form 10-K by reference.

The information required to be disclosed by this Item pursuant to Item 407(a) of Regulation S-K is contained in the proxy statement for our annual meeting of stockholders to be held on April 26, 2022 under the caption "Information Relating to Our Board of Directors and Its Committees—Determination of Independence," and is incorporated in this annual report on Form 10-K by reference.

Item 14. ***Principal Accountant Fees and Services***

The information required to be disclosed by this Item pursuant to Item 9(e) of Schedule 14A is contained in the proxy statement for our annual meeting of stockholders to be held on April 26, 2022 under the caption "Information Relating to Our Board of Directors and Its Committees—Independent Registered Public Accounting Firm Fees and Other Matters", and is incorporated in this annual report on Form 10-K by reference.

PART IV

Item 15. ***Exhibits and Financial Statement Schedules***

(a) DOCUMENTS FILED AS PART OF THIS REPORT:

1. FINANCIAL STATEMENTS

Included in Part II, Item 8:

Report of Independent Registered Public Accounting Firm

Consolidated Statements of Operations for Each of the Three Fiscal Years in the Period Ended January 2, 2022

Consolidated Statements of Comprehensive Income for Each of the Three Fiscal Years in the Period Ended January 2, 2022

Consolidated Balance Sheets as of January 2, 2022 and January 3, 2021

Consolidated Statements of Stockholders' Equity for Each of the Three Fiscal Years in the Period Ended January 2, 2022

Consolidated Statements of Cash Flows for Each of the Three Fiscal Years in the Period Ended January 2, 2022

Notes to Consolidated Financial Statements

2. FINANCIAL STATEMENT SCHEDULE

We have omitted financial statement schedules because of the absence of conditions under which they are required, or because the required information is given in the financial statements or notes thereto.

3. EXHIBITS

Exhibit No.	Exhibit Title
2.1[(1)]	Agreement and Plan of Merger, dated as of July 25, 2021, by and among PerkinElmer, Inc., Burton Acquisition I, Inc., Burton Acquisition II, Inc., BioLegend, Inc. and Gene Lay, solely in his capacity as the Stockholder Representative, filed with the Commission on July 27, 2021 as Exhibit 2.1 to our current report on Form 8-K (File No. 001-05075) and herein incorporated by reference.
3.1	PerkinElmer, Inc.'s Restated Articles of Organization, filed with the Commission on May 11, 2007 as Exhibit 3.1 to our quarterly report on Form 10-Q (File No. 001-05075) and herein incorporated by reference.
3.2	PerkinElmer, Inc.'s Amended and Restated By-laws, filed with the Commission on December 13, 2018 as Exhibit 3.2 to our current report on Form 8-K (File No. 001-05075) and herein incorporated by reference.
4.1	Specimen Certificate of PerkinElmer, Inc.'s Common Stock, $1 par value, filed with the Commission on August 15, 2001 as Exhibit 4.1 to our quarterly report on Form 10-Q (File No. 001-05075) and herein incorporated by reference.
4.2	Description of PerkinElmer, Inc.'s Securities Registered Pursuant to Section 12 of the Securities Exchange Act of 1934, attached hereto as Exhibit 4.2.
4.3	Indenture dated as of October 25, 2011 between PerkinElmer, Inc. and U.S. Bank National Association, filed with the Commission on October 27, 2011 as Exhibit 99.1 to our current report on Form 8-K (File No. 001-05075) and herein incorporated by reference.
4.4	Third Supplemental Indenture, dated as of July 19, 2016, among PerkinElmer, Inc., U.S. Bank National Association, as trustee, and Elavon Financial Services DAC, UK Branch, as paying agent, filed with the Commission on July 19, 2016 as Exhibit 4.2 to our current report on Form 8-K (File No. 001-05075) and herein incorporated by reference.
4.5	Paying Agency Agreement, dated July 19, 2016, among PerkinElmer, Inc., U.S. Bank National Association, as trustee, Elavon Financial Services DAC, UK Branch, as paying agent, and Elavon Financial Services DAC, as transfer agent and registrar, filed with the Commission on July 19, 2016 as Exhibit 4.3 to our current report on Form 8-K (File No. 001-05075) and herein incorporated by reference.

Exhibit No.	Exhibit Title
4.6	Fifth Supplemental Indenture, dated as of September 12, 2019, by and between PerkinElmer, Inc. and U.S. Bank National Association, as trustee (including the form of note contained therein) filed with the Commission on September 12, 2019 as Exhibit 4.2 to our current report on Form 8-K (File No. 001-05075)) and herein incorporated by reference.
4.7	Sixth Supplemental Indenture, dated as of March 8, 2021, by and between the Company and U.S. Bank National Association, as trustee (including the form of note contained therein) filed with the Commission on March 8, 2021 as Exhibit 4.2 to our current report on Form 8-K (File No. 001-05075)) and herein incorporated by reference.
4.8	Seventh Supplemental Indenture, dated as of September 10, 2021, by and between the Company and U.S. Bank National Association, as trustee (including the form of note contained therein) filed with the Commission on September 10, 2021 as Exhibit 4.2 to our current report on Form 8-K (file No. 001-05075)) and herein incorporated by reference.
10.1	Term Loan Credit Agreement, dated as of August 11, 2021, among PerkinElmer, Inc., Bank of America, N.A. as Administrative Agent and the Lenders party thereto, filed with the Commission on August 12, 2021 as Exhibit 99.1 to our current report on Form 8-K (File No. 001-05075) and herein incorporated by reference.
10.2	Credit Agreement, dated as of August 24, 2021, among PerkinElmer, Inc., PerkinElmer Health Sciences, Inc., PerkinElmer Life Sciences International Holdings, PerkinElmer Global Holdings S.à r.l. and PerkinElmer Health Sciences B.V. as Borrowers, Bank of America, N.A. as Administrative Agent, Swing Line Lender and an L/C Issuer, the Lenders party thereto and the other L/C Issuers party thereto, filed with the Commission on August 25, 2021 as Exhibit 99.1 to our current report on Form 8-K (File No. 001-05075) and herein incorporated by reference.
10.3*	Employment Contracts: (1) Amended and Restated Employment Agreement, dated as of August 21, 2019, between Dr. Prahlad R. Singh and PerkinElmer, Inc., filed with the Commission on August 21, 2019 as Exhibit 99.1 to our current report on Form 8-K (File No. 001-05075) and incorporated herein by reference. (2) Employment Agreement between Joel S. Goldberg and PerkinElmer, Inc. dated as of July 21, 2008, filed with the Commission on August 8, 2008 as Exhibit 10.1 to our quarterly report on Form 10-Q (File No. 001-05075) and herein incorporated by reference; (3) Form of Amendment between Joel S. Goldberg and PerkinElmer, Inc. dated as of December 3, 2010, filed with the Commission on March 1, 2011 as Exhibit 10.4(7) to our annual report on Form 10-K (File No. 001-05075) and herein incorporated by reference. (4) Amended and Restated Employment Agreement between Andrew Okun and PerkinElmer, Inc. dated as of January 1, 2014, filed with the Commission on February 25, 2014 as Exhibit 10.2(10) to our annual report on Form 10-K (File No. 001-05075) and herein incorporated by reference. (5) Employment Agreement between Daniel R. Tereau and PerkinElmer, Inc. dated as of February 1, 2016, filed with the Commission on March 1, 2016 as Exhibit 10.2(8) to our annual report on Form 10-K (File No. 001-05075) and herein incorporated by reference. (6) Employment Agreement between Tajinder Vohra and PerkinElmer, Inc. dated as of January 29, 2018, filed with the Commission on May 8, 2018 as Exhibit 10.1 to our quarterly report on Form 10-Q (File No. 001-05075) and herein incorporated by reference. (7) Employment Agreement between James Mock and PerkinElmer, Inc., dated as of April 10, 2018, filed with the Commission on April 13, 2018 as Exhibit 99.1 to our current report on Form 8-K (File No. 001-05075) and herein incorporated by reference. (8) Employment Agreement between Miriame Victor and PerkinElmer, Inc. dated as of January 1, 2022, attached hereto as Exhibit 10.3(8).
10.4*	PerkinElmer, Inc.'s 2009 Incentive Plan, filed with the Commission on March 12, 2014 as Appendix A to our definitive proxy statement on Schedule 14A (File No. 001-05075) and herein incorporated by reference.
10.5*	PerkinElmer, Inc.'s 2008 Deferred Compensation Plan, filed with the Commission on December 12, 2008 as Exhibit 10.1 to our current report on Form 8-K (File No. 001-05075) and herein incorporated by reference.
10.6*	First Amendment to PerkinElmer, Inc.'s 2008 Deferred Compensation Plan, filed with the Commission on March 1, 2011 as Exhibit 10.9 to our annual report on Form 10-K (File No. 001-05075) and herein incorporated by reference.

Exhibit No.	Exhibit Title
10.7*	PerkinElmer, Inc. 1998 Employee Stock Purchase Plan as Amended and Restated on December 10, 2009, filed with the Commission on March 1, 2010 as Exhibit 10.15 to our annual report on Form 10-K (File No. 001-05075) and herein incorporated by reference.
10.8*	Form of Stock Option Agreement given by PerkinElmer, Inc. to its executive officers for use under the 2009 Incentive Plan, filed with the Commission on April 28, 2009 as Exhibit 10.3 to our current report on Form 8-K (File No. 001-05075) and herein incorporated by reference.
10.9*	PerkinElmer, Inc. Savings Plan Amended and Restated effective January 1, 2021, filed with the Commission on March 2, 2021 as Exhibit 10.16 to our annual report on Form 10-K (File No. 001-05075) and herein incorporated by reference.
10.10*	PerkinElmer, Inc. Employees Retirement Plan Amended and Restated effective January 1, 2012, as further amended, filed with the Commission on February 26, 2019 as Exhibit 10.26 to our annual report on Form 10-K (file No. 001-05075) and herein incorporated by reference.
10.11*	PerkinElmer, Inc. Amended and Restated Global Incentive Compensation Plan (Executive Officers) effective January 4, 2021, filed with the Commission on May 11, 2021 as Exhibit 10.5 to our quarterly report on Form 10-Q (file No. 001-05075) and herein incorporated by reference.
10.12*	PerkinElmer, Inc.'s 2019 Incentive Plan, filed with the Commission on March 13, 2019 as Appendix B to our definitive proxy statement on Schedule 14A (File No. 001-05075) and herein incorporated by reference.
10.13*	Form of Restricted Stock Unit Agreement for grants to non-employee directors under the 2019 Incentive Plan, filed with the Commission on April 24, 2019 as Exhibit 99.2 to our current report on Form 8-K (File No. 001-05075) and herein incorporated by reference.
10.14*	Form of Restricted Stock Unit Agreement (Performance-based vesting) with single-trigger vesting acceleration upon a change of control for grants to executive officers under the 2019 Incentive Plan, filed with the Commission on April 24, 2019 as Exhibit 99.3 to our current report on Form 8-K (File No. 001-05075) and herein incorporated by reference.
10.15*	Form of Restricted Stock Unit Agreement (Performance-based vesting) with double-trigger vesting acceleration following a change of control for grants to executive officers under the 2019 Incentive Plan, filed with the Commission on April 24, 2019 as Exhibit 99.4 to our current report on Form 8-K (File No. 001-05075) and herein incorporated by reference.
10.16*	Form of Stock Option Agreement with single-trigger vesting acceleration upon a change of control for grants to executive officers under the 2019 Incentive Plan, filed with the Commission on April 24, 2019 as Exhibit 99.5 to our current report on Form 8-K (File No. 001-05075) and herein incorporated by reference.
10.17*	Form of Stock Option Agreement with double-trigger vesting acceleration following a change of control for grants to executive officers under the 2019 Incentive Plan, filed with the Commission on April 24, 2019 as Exhibit 99.6 to our current report on Form 8-K (File No. 001-05075) and herein incorporated by reference.
10.18*	Form of Restricted Stock Agreement with single-trigger vesting acceleration upon a change of control for grants to executive officers under the 2019 Incentive Plan, filed with the Commission on April 24, 2019 as Exhibit 99.7 to our current report on Form 8-K (File No. 001-05075) and herein incorporated by reference.
10.19*	Form of Restricted Stock Agreement with double-trigger vesting acceleration following a change of control for grants to executive officers under the 2019 Incentive Plan, filed with the Commission on April 24, 2019 as Exhibit 99.8 to our current report on Form 8-K (File No. 001-05075) and herein incorporated by reference.
10.20*	Form of Restricted Stock Unit Agreement (Time-based vesting) with single-trigger vesting acceleration upon a change of control for grants to executive officers under the 2019 Incentive Plan, filed with the Commission on April 1, 2020 as Exhibit 99.1 to our current report on Form 8-K (File No. 001-05075) and herein incorporated by reference.
10.21*	Form of Restricted Stock Unit Agreement (Time-based vesting) with double-trigger vesting acceleration upon a change of control for grants to executive officers under the 2019 Incentive Plan, filed with the Commission on April 1, 2020 as Exhibit 99.2 to our current report on Form 8-K (File No. 001-05075) and herein incorporated by reference.
10.22*	Form of Restricted Stock Unit Agreement (Performance-based vesting) with single-trigger vesting acceleration upon a change of control for grants to executive officers under the 2019 Incentive Plan, filed with the Commission on May 11, 2021 as Exhibit 10.1 to our quarterly report on Form 10-Q (File No. 001-05075) and herein incorporated by reference.

Exhibit No.	Exhibit Title
10.23*	Form of Restricted Stock Unit Agreement (Performance-based vesting) with double-trigger vesting acceleration upon a change of control for grants to executive officers under the 2019 Incentive Plan, filed with the Commission on May 11, 2021 as Exhibit 10.2 to our quarterly report on Form 10-Q (File No. 001-05075) and herein incorporated by reference.
10.24*	Form of Restricted Stock Agreement with single-trigger vesting acceleration upon a change of control for grants to executive officers under the 2019 Incentive Plan, filed with the Commission on May 11, 2021 as Exhibit 10.3 to our quarterly report on Form 10-Q (File No. 001-05075) and herein incorporated by reference.
10.25*	Form of Restricted Stock Agreement with double-trigger vesting acceleration upon a change of control for grants to executive officers under the 2019 Incentive Plan, filed with the Commission on May 11, 2021 as Exhibit 10.4 to our quarterly report on Form 10-Q (File No. 001-05075) and herein incorporated by reference.
21	Subsidiaries of PerkinElmer, Inc., attached hereto as Exhibit 21.
23	Consent of Independent Registered Public Accounting Firm, attached hereto as Exhibit 23.
31.1	Certification of Chief Executive Officer pursuant to Rule 13a-14(a) under the Securities Exchange Act of 1934, attached hereto as Exhibit 31.1.
31.2	Certification of Chief Financial Officer pursuant to Rule 13a-14(a) under the Securities Exchange Act of 1934, attached hereto as Exhibit 31.2.
32.1	Certification of Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, attached hereto as Exhibit 32.1.
101.INS	Inline 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	Inline XBRL Taxonomy Extension Schema Document.
101.CAL	Inline XBRL Calculation Linkbase Document.
101.DEF	Inline XBRL Definition Linkbase Document.
101.LAB	Inline XBRL Labels Linkbase Document.
101.PRE	Inline XBRL Presentation Linkbase Document.
104	Cover Page Interactive Data File (formatted as inline XBRL with applicable taxonomy extension information contained in Exhibits 101).

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(1) The exhibits and schedules to this agreement have been omitted from this filing pursuant to Item 601(b)(2) of Regulation S-K. The registrant agrees to furnish copies of any of such exhibits or schedules to the SEC upon request.

* Management contract or compensation plan or arrangement required to be filed as an exhibit pursuant to Item 15(b) of Form 10-K.

Attached as Exhibit 101 to this report are the following formatted in XBRL (Extensible Business Reporting Language):

(i) Consolidated Statements of Operations for each of the three years in the period ended January 2, 2022, (ii) Consolidated Balance Sheets as of January 2, 2022 and January 3, 2021, (iii) Consolidated Statements of Comprehensive Income for each of the three years in the period ended January 2, 2022, (iv) Consolidated Statements of Stockholders' Equity for each of the three years in the period ended January 2, 2022, (v) Consolidated Statements of Cash Flows for each of the three years in the period ended January 2, 2022, and (vi) Notes to Consolidated Financial Statements.

Item 16. ***Form 10-K Summary***

Not applicable.

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.

PERKINELMER, INC.

Signature	Title	Date
By: /s/ PRAHLAD SINGH, PhD Prahlad Singh, PhD	President and Chief Executive Officer (Principal Executive Officer)	March 3, 2022
By: /s/ JAMES M. MOCK James M. Mock	Sr. Vice President and Chief Financial Officer (Principal Financial Officer)	March 3, 2022
By: /s/ ANDREW OKUN Andrew Okun	Vice President, Chief Accounting Officer and Treasurer (Principal Accounting Officer)	March 3, 2022

POWER OF ATTORNEY AND SIGNATURES

We, the undersigned officers and directors of PerkinElmer, Inc., hereby severally constitute Prahlad Singh and James M. Mock, and each of them singly, our true and lawful attorneys with full power to them, and each of them singly, to sign for us and in our names, in the capacities indicated below, this Annual Report on Form 10-K and any and all amendments to said Annual Report on Form 10-K, and generally to do all such things in our name and behalf in our capacities as officers and directors to enable PerkinElmer, Inc. to comply with the provisions of the Securities Exchange Act of 1934, and all requirements of the Securities and Exchange Commission, hereby rectifying and confirming signed by our said attorneys, and any and all amendments thereto.

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

Signature	Title	Date
By: /s/ PRAHLAD SINGH, PhD Prahlad Singh, PhD	President, Chief Executive Officer and Director (Principal Executive Officer)	March 3, 2022
By: /s/ JAMES M. MOCK James M. Mock	Sr. Vice President and Chief Financial Officer (Principal Financial Officer)	March 3, 2022
By: /s/ ANDREW OKUN Andrew Okun	Vice President, Chief Accounting Officer and Treasurer (Principal Accounting Officer)	March 3, 2022
By: /s/ PETER BARRETT, PhD Peter Barrett, PhD	Director	March 3, 2022
By: /s/ SAMUEL R. CHAPIN Samuel R. Chapin	Director	March 3, 2022
By: /s/ SYLVIE GRÉGOIRE, PharmD Sylvie Grégoire, PharmD	Director	March 3, 2022
By: /s/ ALEXIS P. MICHAS Alexis P. Michas	Director	March 3, 2022
By: /s MICHEL VOUNATSOS Michel Vounatsos	Director	March 3, 2022
By: /s/ FRANK WITNEY, PhD Frank Witney, PhD	Director	March 3, 2022
By: /s/ PASCALE WITZ Pascale Witz	Director	March 3, 2022

CORPORATE HEADQUARTERS

PerkinElmer, Inc.
940 Winter Street
Waltham, MA 02451 USA
Phone: (781) 663-6900
Fax: (781) 663-6052
www.perkinelmer.com

Information requests from security analysts and other members of the financial community can be directed to Investor Relations.

ANNUAL MEETING

The Annual Meeting of PerkinElmer, Inc. shareholders will be held at 8:00 A.M. on Tuesday, April 26, 2022, at the PerkinElmer Headquarters, 940 Winter Street, Waltham, Massachusetts and via live webcast at www.virtualshareholdermeeting.com/PKI2022. A formal meeting notice, an Annual Report, a Proxy Statement and a form of Proxy will be furnished to each shareholder as of the record date of February 28, 2022.

INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Deloitte & Touche LLP
200 Berkeley Street
Boston, MA 02116

SHAREHOLDER SERVICES

PerkinElmer shareholder records are maintained by its transfer agent, Computershare. Inquiries relating to shareholder records, stock transfer, changes of ownership, changes of address, dividend payments, dividend reinvestment, direct deposit of quarterly dividends and consolidation of accounts should be addressed to:

Regular mail
Computershare, Inc.
PO Box 505000
Louisville, KY 40233
www.computershare.com

Overnight delivery
Computershare, Inc.
462 South 4th Street, Suite 1600
Louisville, KY 40202

Shareholders may also call 1-877-711-4098 (U.S.) or 1-201-680-6578 (non-U.S.). For the hearing impaired (TTY/TDD), call 1-800-231-5469 (U.S.) or 1-201-680-6610 (non-U.S.).

STOCK EXCHANGE INFORMATION

PerkinElmer, Inc., common stock is listed and traded on the New York Stock Exchange.
Ticker symbol: PKI

PERKINELMER STANDARDS OF BUSINESS CONDUCT

PerkinElmer is fully committed to conducting business with our customers, shareholders, and employees in accordance with high moral and ethical principles, and in compliance with applicable law. As part of this commitment, PerkinElmer provides Business Conduct training and its Standards of Business Conduct to all employees, who are expected to follow the spirit as well as the letter of the law. At PerkinElmer, we place a high priority on managing our business in an ethical manner in order to maintain our established reputation for integrity and dependability.

FACTORS AFFECTING FUTURE PERFORMANCE

This document contains "forward-looking" statements within the meaning of the Private Securities Litigation Reform Act of 1995. Any statements in this document that relate to prospective events or developments are deemed to be forward-looking statements. Words such as "believes," "intends," "anticipates," "plans," "expects," "projects," "forecasts," "will" and similar expressions, and references to guidance, are intended to identify forward-looking statements about the expected future business and financial performance of PerkinElmer.

Forward-looking statements are based on management's current expectations and assumptions, which are inherently subject to uncertainties, risks and changes in circumstances that are difficult to predict. Actual outcomes and results may differ materially from these expectations and assumptions due to changes in political, economic, business, financial, competitive, market, regulatory and other factors. Refer to our enclosed Annual Report on Form 10-K, under the caption "Item 1A. Risk Factors," for more information. We undertake no obligation to publicly update or review any forward-looking information, whether as a result of new information, future developments or otherwise.

FORM 10-K

This Annual Report to Shareholders includes a copy of our Annual Report on Form 10-K for the fiscal year ended January 2, 2022, excluding exhibits, as filed with the Securities and Exchange Commission and available through our Web site at www.perkinelmer.com. We will, upon written request and payment of an appropriate processing fee, provide our shareholders with copies of the exhibits to our Annual Report on Form 10-K. Please address your request to PerkinElmer, Inc., 940 Winter Street, Waltham, Massachusetts 02451, Attention: Investor Relations.

www.perkinelmer.com

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PerkinElmer®

For a complete listing of our global offices, visit www.perkinelmer.com/ContactUs

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