2020 Annual Report

We drive innovation that makes the world healthier, safer, smarter and more sustainable

EMERSON

Our Purpose

We drive innovation that makes the world
healthier, **safer**, **smarter** and **more sustainable**

Our Causes

Planet

We deliver sustainable solutions that improve efficiency, reduce emissions and conserve resources.

Humanity

We strive to advance health, comfort, food quality and safety.

Champion

We lead our customers through complex technical, regulatory and economic challenges.

Inclusion

We cultivate an environment based on trust and support.

Future

We promote STEM education and programs that prepare the next generation of critical thinkers and problem solvers.

Our Values

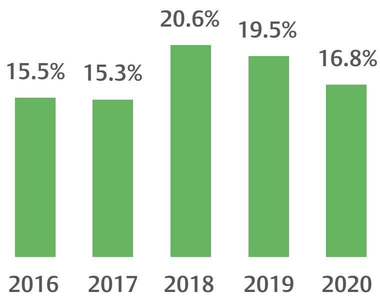
Integrity, Collaboration, Safety & Quality, Continuous Improvement, Customer Focus, Innovation, Support Our People

Financial Highlights

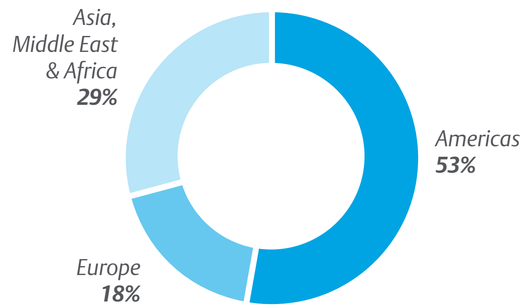
$3.1B
Operating Cash Flow

$16.8B
Net Sales

Return on Total Capital
(After Tax)

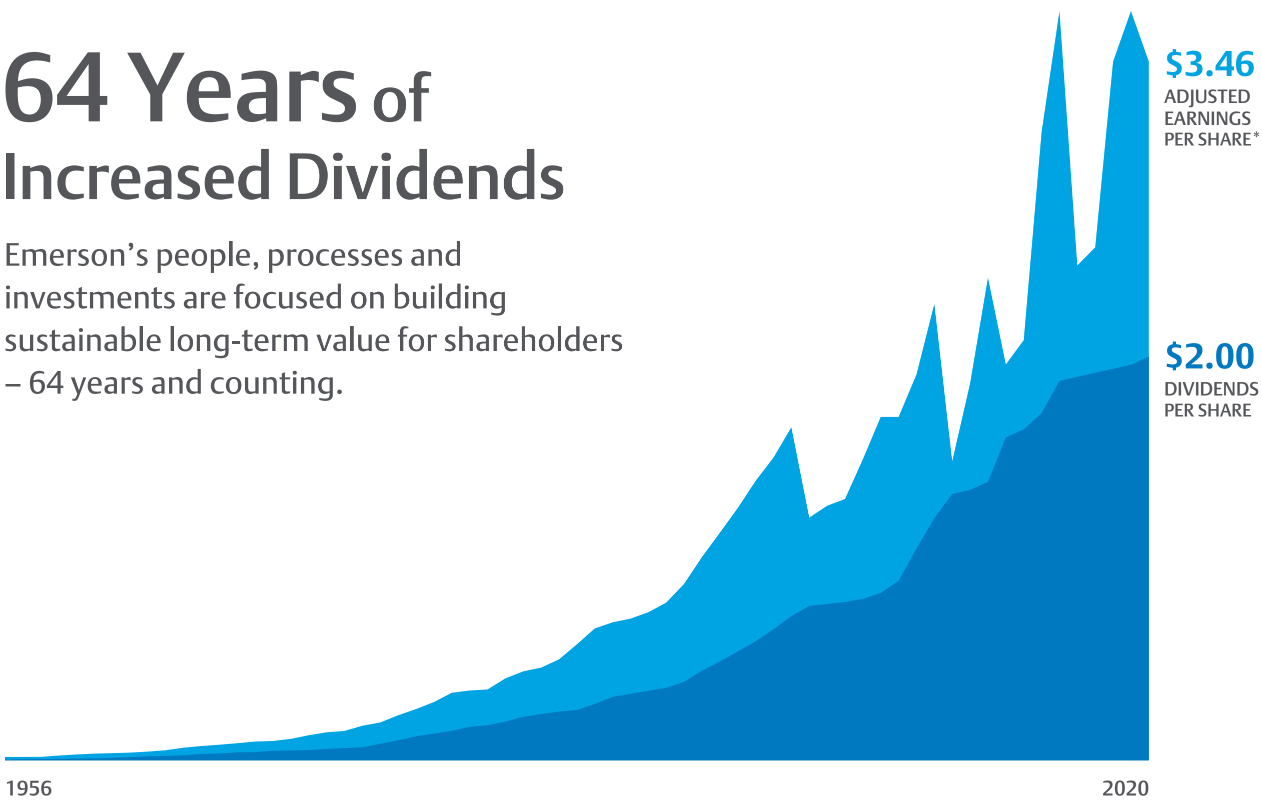


Sales by Geographic Destination



64 Years of Increased Dividends

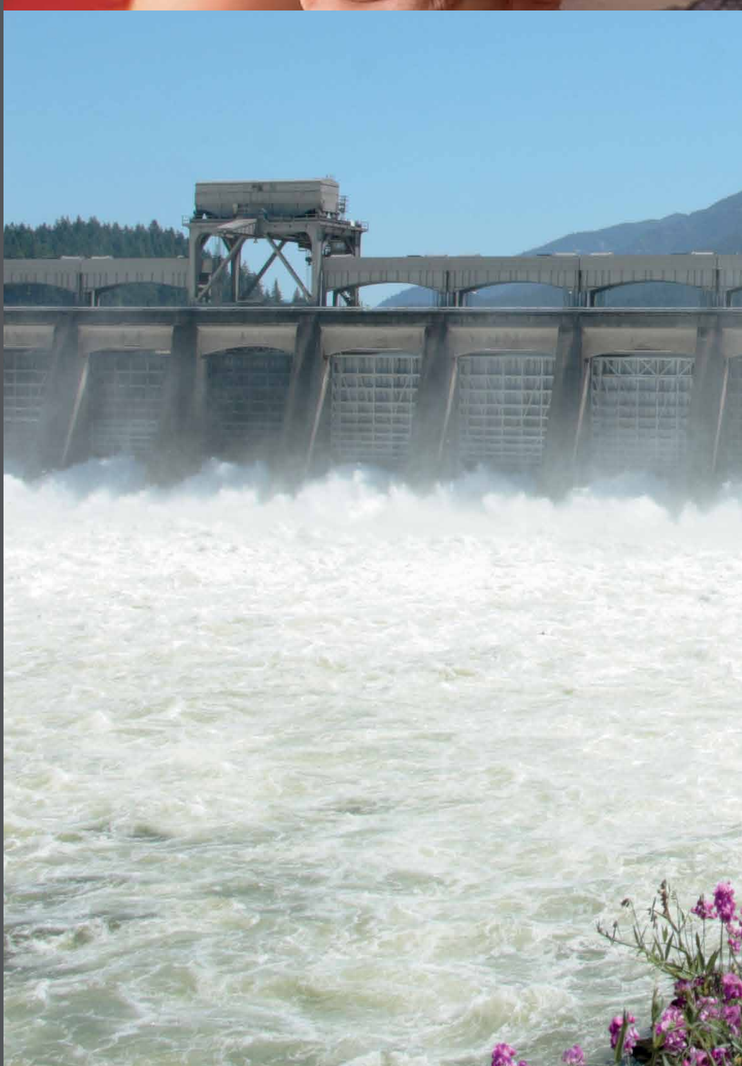
Emerson's people, processes and investments are focused on building sustainable long-term value for shareholders – 64 years and counting.



*2020 earnings per share excludes restructuring costs and special advisory fees of $0.42 and discrete tax benefits of $0.20.

Healthier

We believe that health is vital to human advancement. Emerson's expertise and technologies in life sciences, food and beverage, the cold chain and environmentally responsible home comfort are helping make it more possible than ever for people to live comfortable and health-conscious lives.



More Sustainable

We have a pivotal role to play in the global effort to activate sustainable business practices and manage resources efficiently. In addition to our internal sustainability efforts, Emerson technologies and expertise are helping customers achieve sustainability targets, fulfill environmental regulations and implement responsible solutions.

Safer

Our customers operate in the world's most critical industries, where employee and customer safety are paramount. With deep experience and a broad portfolio of safety and security solutions, Emerson is helping customers reduce risk, protect employees and communities, and operate with increased reliability and certainty.

Smarter

Our advanced technologies have transformed the ways our customers operate, empowering improvements in efficiency, productivity, reliability and profitability. Emerson customers have a trusted partner to help navigate the digital transformation journey and implement solutions with a real ROI that drives their businesses forward.

David N. Farr
Chairman and
Chief Executive Officer

Dear Shareholders,

For more than a century, Emerson's history has been filled with achievements and challenges that have driven innovative thinking and bold transformations, molding us into the company we are today.

After all, an organization cannot grow and create long-term value for 130 years without a rigorous, disciplined management approach that enables the flexibility to adapt to changing markets and customers. In that regard, our 130th year was no different. 2020 will be long remembered as a defining moment in the history of our company. This year brought obstacles of a magnitude that were impossible to foresee, but it also opened up new opportunities to adapt and rise to the needs and expectations of our employees, customers, communities and shareholders.

The COVID-19 pandemic transformed the global economic landscape and brought to the foreground the importance of prioritizing the health of employees and customers to a successful business. The pandemic also highlighted the immense responsibility we have to support critical industries around the world: life sciences, water, food and beverage, power and energy, the cold chain, and indoor air comfort and quality, just to name a few. In my two decades as CEO, never has a single external shock had such far-reaching and lasting effects on the world – and never have I been prouder of our company's ability to meet and overcome the toughest of challenges.

My core leadership team, the Office of the Chief Executive and 20 additional leaders, remained in our offices every day throughout the challenging and dynamic days of the spring and summer. Our priorities were to keep our 83,500 employees safe, ensure business continuity and serve customers in essential industries with our critical technologies and services. We stressed and tested every aspect of the Emerson Enterprise Risk Process and it stood up well. The global supply chain and regionalization strategy we had put in place long before the pandemic began ensured we were prepared to sustain our business, enact the appropriate safety measures for each region, and pivot quickly and efficiently to meet our customers' needs. We shifted manufacturing facilities to enable development of critical medical devices and personal protective equipment. We protected the integrity of testing kits with our cold chain technology. And we innovated technologies that helped our customers adapt to social distancing guidelines and operate efficiently at lower capacities.

Supporting Our Communities through the Pandemic

Families around the world have been impacted by the uncertainty and upheaval surrounding COVID-19, and we moved quickly in the first 30 days of the crisis. To strengthen our hometown community, we provided financial support to address food, housing, health care, mental health, senior care and child care needs in our headquarters location of St. Louis.

$2.55B

Free Cash Flow

$2.15B

Returned to Shareholders

$1.7B+

Strategic Acquisitions*

Open Systems International, Inc. closed on October 1, 2020.

I am tremendously proud of how Emerson employees stood up to help the world and each other through this pivotal time. For additional color on some of these remarkable efforts, please see pages 8-9.

Amid the evolving market dynamics and uncertainties, we quickly shifted and accelerated our cost containment and restructuring actions to address the new demand environment. And, thanks to our disciplined management process, we continue to deliver strong and consistent performance even in the most challenging of conditions, marking in 2020 our 64th year of consecutive increased dividends. We returned $2.15 billion to our shareholders in 2020 and invested over $1.7 billion in strategic acquisitions for the future prosperity of Emerson.

Our ability to adapt and rise to the call of our customers reflects a core dedication to leave the world in a better place than we found it. It's this purpose-focused mindset that drives us to achieve our full potential. In January of 2020, before COVID-19 hit, we started the process to define Emerson's purpose and reimagine the causes we work toward every day. Guided by input from more than 17,000 employees around the world, we aligned on our **Purpose: We drive innovation that makes the world healthier, safer, smarter and more sustainable**. This report is structured around those four focus areas, and it includes more information about what this purpose means to us and how we strive toward living it every

ONE-YEAR PERFORMANCE

Years ended September 30 Dollars in millions, except per share amounts	2019	**2020**	PERCENT CHANGE
Sales	$18,372	**$16,785**	(9)%
Gross profit	$ 7,815	**$ 7,009**	(10)%
Adjusted EBIT	$ 3,128	**$ 2,808**	(10)%
Adjusted EBITDA	$ 3,950	**$ 3,662**	(7)%
Adjusted net earnings	$ 2,291	**$ 2,103**	(8)%
Adjusted earnings per share	$ 3.69	**$ 3.46**	(6)%
Dividends per share	$ 1.96	**$ 2.00**	2 %
Operating cash flow	$ 3,006	**$ 3,083**	3 %
Free cash flow	$ 2,412	**$ 2,545**	6 %
Dividends as a percent of free cash flow	50%	**48%**	

Adjusted EBIT, EBITDA, net earnings and earnings per share exclude restructuring costs and special advisory fees of $317 ($257 after-tax; $0.42 per share) and $95 ($72 after-tax; $0.12 per share) in 2020 and 2019, respectively. Adjusted net earnings and earnings per share also exclude discrete tax benefits of $119 ($0.20 per share) and $87 ($0.14 per share) in 2020 and 2019, respectively.

THREE-YEAR PERFORMANCE

Years ended September 30 Dollars in millions, except per share amounts	2017*	**2020**	THREE-YEAR CAGR
Sales	$15,264	**$16,785**	3%
Gross profit	$ 6,404	**$ 7,009**	3%
Adjusted EBIT	$ 2,671	**$ 2,808**	2%
Adjusted EBITDA	$ 3,307	**$ 3,662**	3%
Adjusted net earnings	$ 1,714	**$ 2,103**	7%
Adjusted earnings per share	$ 2.65	**$ 3.46**	9%
Dividends per share	$ 1.92	**$ 2.00**	1%
Operating cash flow	$ 2,690	**$ 3,083**	5%
Free cash flow	$ 2,214	**$ 2,545**	5%
Dividends as a percent of free cash flow	56%	**48%**	

**2017 results are presented on a continuing operations basis.*

Adjusted EBIT, EBITDA, net earnings and earnings per share exclude restructuring costs and special advisory fees of $317 ($257 after-tax; $0.42 per share) and $78 ($53 after-tax; $0.08 per share) in 2020 and 2017, respectively, and valves and controls first year acquisition accounting charges of $93 ($65 after-tax, $0.10 per share) in 2017. Adjusted net earnings and earnings per share also exclude discrete tax benefits of $119 ($0.20 per share) and $47 ($0.07 per share) in 2020 and 2017, respectively.

single day. Derived from this Purpose, our new set of Causes speaks to our commitment to responsibly steward our customers, employees and communities in everything we do.

Our people are our most valuable asset and source for sustained success. And as a global technology organization, we've seen firsthand the energy and innovation that come from encouraging and honoring diverse perspectives and backgrounds. Tragic events of the past year brought into clear view the inequities that exist in our society. Let me be clear – there is no place for racism or discrimination of any form at Emerson or in any modern business community. We remain committed to efforts aimed at continuous improvement in fostering a culture of diversity and inclusion at every level of our organization. Our leadership team continues to work in close partnership with our Blacks Reinforcing Diversity Employee Resource Group, as well as our Women in STEM, Veterans, LGBTQ+ Allies and Somos (Latin and Hispanic) employee resource groups, to identify ways to improve diversity, create opportunity and efforts to ensure our workforce reflects the industries and world we serve.

We also continue to emphasize and advance our strategy and dialogue around environmental, social and governance (ESG) issues. We are committed to ensuring our business practices are sustainable in every sense of the word, and we recognize our integral role in enabling customers and suppliers to do the same. At our core, Emerson is all about sensing, measurement, control, data management and optimization. We are dedicated to leading the industry in more efficient solutions and developing technologies that enable a better, cleaner future. We are focused on helping customers navigate regulatory changes and technical complexity in their work to manage resources and care for customers, employees, communities and the planet. This has been a key aspect of Emerson's DNA for a long time – at least the last 40 years in which I've been a part of this organization.

Our commitment to a better future – leading through all market conditions, ensuring business continuity and driving long-term sustainability – is something we are passionate about for Emerson and our customers. The accelerated growth and adoption of technology over the past two decades has transformed the ways Emerson and our industries operate. Simply stated, the events of 2020 have catapulted digital transformation technologies from basic measurement, monitoring, control, data management and optimization opportunities into critical investments for sustaining and future-proofing businesses.

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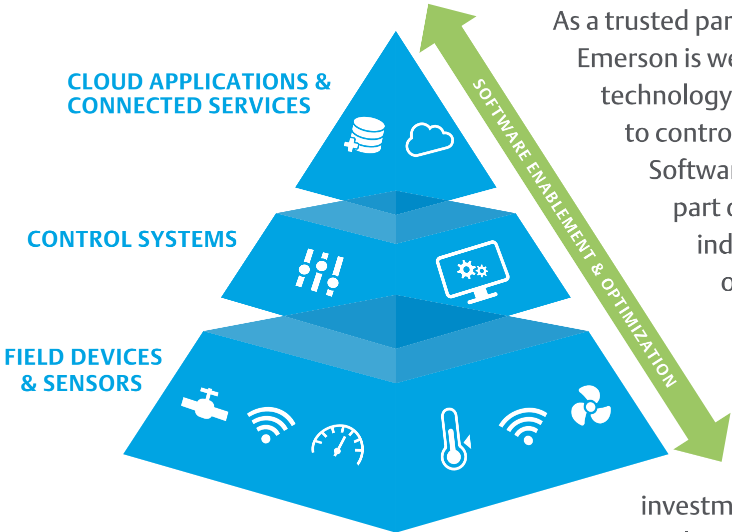


As a trusted partner to our diverse industry customers around the world, Emerson is well-positioned to provide solutions up and down the technology value pyramid – from devices, instruments and sensors, to control systems, to data management, analytics and services. Software enables each of these critical value layers. In fact, as part of our ongoing work to guide customers through their individual digital transformation journeys, we are reinforcing our commitment to software as a key value driver with our $2.4 billion software-enabled innovation portfolio. These solutions, rich with opportunities for growth, consist of organic innovation and development efforts as well as acquisitions that broaden and complement Emerson's unique, scalable offerings. In 2020, our investment strategy included acquisitions such as Open Systems International, Inc. (OSI Inc.), strengthening our ability to help customers incorporate renewable energy sources and improve energy efficiency and reliability; Verdant, broadening our energy management and optimization capabilities for multifamily residential and commercial applications; American Governor Company, building our technology capabilities and expertise in the renewable hydroelectric power industry; and Progea Group, expanding our robust embedded software and control portfolio for manufacturing, infrastructure and building automation applications. We are excited to welcome this new expertise and talent to the Emerson family and to further develop and scale these technologies across even more industries and customers.

In addition to strategic acquisitions, Emerson remains committed to both organic product and technology development as well as partnerships. We're continuing to build our technology capabilities by cultivating our partnerships with Microsoft for key cloud infrastructure, with Dragos for robust cybersecurity solutions and with AspenTech for digital twin and analytics solutions. In 2020, we expanded our collaboration with Mitsubishi Hitachi Power Systems Americas (MHPS) to develop solutions that drive operational excellence and create cleaner, more reliable power. These valued partners strengthen our overall offering to customers, enabling optimized operations, improved performance and protected assets.

As we build our software and other capabilities, we are also helping customers prepare for another significant change. Industries across the globe are grappling with the effects of a skills shortage resulting from a trifecta of challenges: retiring workers, a smaller skilled labor pool and a shift in required expertise from high-tech operations. We are committed

Partnering to Help Grow Emerson's Software Expertise and Infrastructure

We're continuing to build our technology capabilities by cultivating our partnerships with Microsoft for key cloud infrastructure, with Dragos for robust cybersecurity solutions and with AspenTech for digital twin and analytics solutions.

to advancing technologies that prepare the workforce of the future. Tools such as our digital twin solutions are allowing operators to be trained through dynamic high fidelity simulations that do not affect the current running processes. This year, I am pleased that our digital twin and Industrial Internet of Things technologies were selected by one of the largest refineries in India to support workforce upskilling, process optimization and plant safety. This is one of many examples of our growing digital twin installed base, which now comprises more than 4,000 systems deployed across the globe.

We are also advancing education at the professional level through a new innovation center in Boulder, Colorado, that focuses on industry training, research and new product development for our flow measurement technologies. This $100 million investment will create 250 new jobs in Colorado and is the latest example of our commitment to customer-driven innovation and high-tech manufacturing, as well as to attracting the best and brightest talent to work for Emerson.

Our progress this year would not have been possible without the work and commitment of our experienced Board of Directors, who remained dedicated to Emerson's success throughout even the most challenging moments. I want to extend a special welcome to our newest board member, W. H. "Bill" Easter III, who was elected in October. Bill will bring a wealth of business acumen and wisdom to our ranks. On behalf of the Board and the full team at Emerson, we thank you, our shareholders, for your continued support and trust. We remain committed to creating long-term value for you every day, as we work to make the world healthier, safer, smarter and more sustainable.

As I finish my 20th year as the leader of Emerson, I am exceptionally proud of this global organization that has driven Emerson to extraordinary performance and has returned over $36 billion in cash to our shareholders during this 20-year period.

I am certainly eager for the day when we can all see each other again, face-to-face. Until that time, please be safe and stay well.

David N. Farr
Chairman and Chief Executive Officer

Advancing STEM Education in Schools

Through our "We Love STEM" initiative, Emerson partners with industry and academic organizations to build a greater pipeline of talent and grow students' appreciation of science, technology, engineering and math (STEM). As schools confronted new remote learning formats in the fall, we delivered more than 7,000 STEM activity kits to elementary and middle schools in our St. Louis headquarters community, providing students with hands-on learning opportunities.

Empowering Essential Industries Amid the Pandemic

Emerson's history is defined by proactive leadership and a drive to protect our employees, communities, customers and industries. We take seriously the key role we have in supporting essential workers in life sciences, food and beverage, chemical, power, energy and other industries critical to modern life.

As the COVID-19 pandemic devastated communities, challenged front-line workers and created uncertainty in our global economies, Emerson remained steadfast in our commitment to help the world through this difficult time. We immediately took steps to protect our 83,500 employees across the globe by following guidelines from global health experts. And we implemented stringent protocols to help ensure the health and safety of employees working in essential facilities.

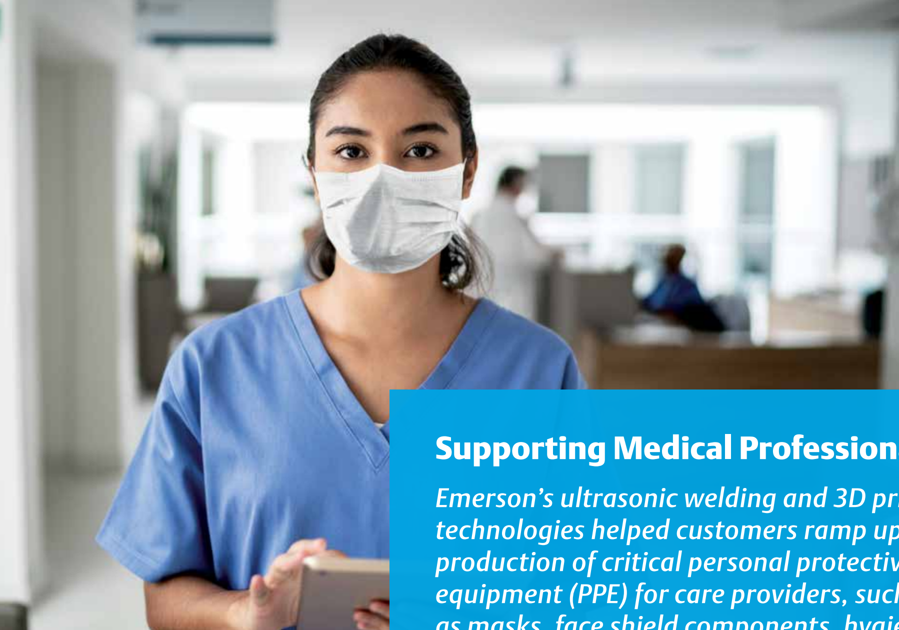
Through collaboration, innovation and strength of resolve, we came together to ensure business continuity, combat the COVID-19 crisis and keep essential infrastructure operating – from power plants bringing electricity to hospitals and homes, to cold chain solutions safeguarding food for our families, to technology protecting the temperature-sensitive medications that keep us healthy.

Meeting Critical Needs for Patient Care

We prioritized production of valves, filters and regulator technologies to meet the growing need for medical devices in hospitals and health care facilities. Our valves, for example, powered sterilizers, oxygen therapy and supply devices, and hematology equipment in hospitals and triage centers.

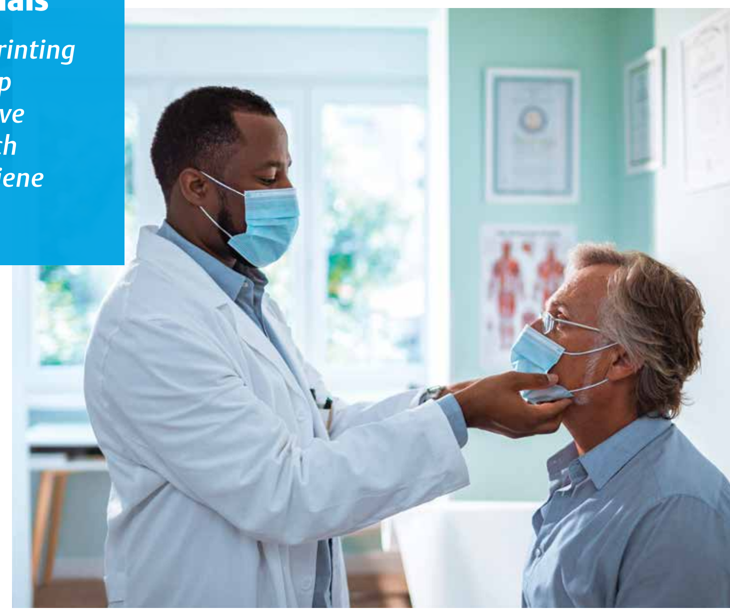
Enabling Social Distancing

Our remote servicing and automation technologies helped companies keep facilities operational with employees working from a distance. This allowed essential industries, including water, power and energy, to preserve reliable electricity and safe water in homes, hospitals and businesses.



Supporting Medical Professionals

Emerson's ultrasonic welding and 3D printing technologies helped customers ramp up production of critical personal protective equipment (PPE) for care providers, such as masks, face shield components, hygiene gowns and filter media.



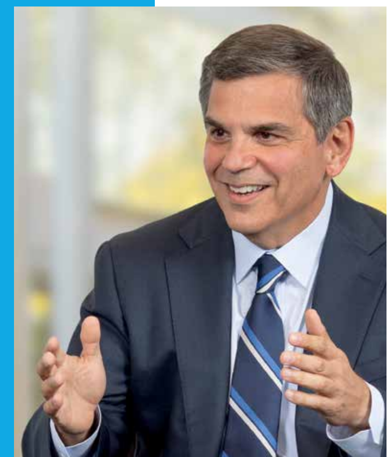
Advancing the Race to a Vaccine

Our DeltaV distributed control system and technologies helped biotech and pharmaceutical manufacturers produce COVID-19 vaccine clinical trial materials and expand manufacturing to quickly and safely advance therapies through the trial process and prepare for large-scale production and distribution.

Developing Vital Resources

Our advanced compressors and control technologies helped "pop-up" emergency facilities and testing sites maintain temperature, humidity and filtration requirements for environmental control and medication storage. Our Copeland compressors and condensing units helped manufacturers quickly adapt production lines to develop critical supplies, including temperature-sensitive COVID-19 test kits. And we protected the integrity of such equipment through transport with Emerson's temperature and location monitoring technologies.

Insights from the Office of the Chief Executive



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Emerson’s rigorous management process fosters a culture that is inherently focused on driving financial performance. We strive to improve profitability and cash generation through all economic conditions. As a result, we have the flexibility to make balanced capital allocation decisions that both invest in Emerson’s future and provide attractive cash returns to share owners. We are proud of our record of increasing dividends for 64 consecutive years through good and difficult times, including the COVID-19 crisis our world is battling now.

Frank J. Dellaquila

Senior Executive Vice President, Chief Financial Officer

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As a global company with broad market reach, a strong foundation of governance allows us to keep up with the challenging pace of change across the industries we serve. We are focused on being transparent, consistent and fair — especially as we navigate important issues and opportunities in these changing times. Our goal is always to serve Emerson’s many stakeholders, while protecting our assets and people.

Sara Yang Bosco

Senior Vice President, Secretary and General Counsel

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Our customers value a trusted partner they can constantly rely on, with a legacy of excellent operational performance and efficient supply chain to help them navigate ever-evolving market demands. Emerson’s operational strength has truly shone this year, especially as we’ve diligently served essential industries and supported customers during the COVID-19 pandemic.

Steven J. Pelch

Executive Vice President, Chief Operating Officer

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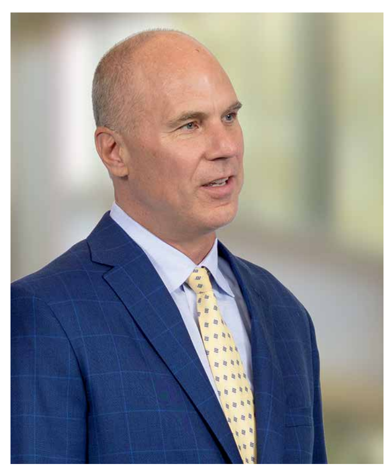
Emerson’s drive to recognize and anticipate industry direction is part of our disciplined approach to value creation. We aim to understand customer preferences and evaluate macrotrends when building strategy, developing projects and identifying potential investments. All of this is made possible with the help of our successful ecosystem of partnerships and acquisitions, which complement our technology capabilities, infrastructure and analytics to provide a unique competitive advantage.

Mark J. Bulanda

Senior Vice President, Planning and Development



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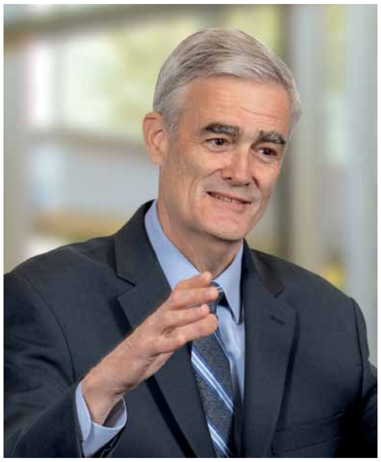
As global leaders, we collaborate with our partners and customers to navigate complex challenges facing society and our environment. We help them operate more efficiently, reduce emissions, protect resources and support communities where we all work and live. We step up when the unexpected happens, such as jumping into action to maintain the resilience of critical infrastructure supply chains and essential services. Our capabilities add both short- and long-term value to our customers and industries, something that was particularly important as COVID-19 swept the globe.

Michael H. Train
President



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We deliver practical, innovative approaches to challenges and opportunities across the commercial and residential markets. Our tools, home product offerings, cold chain technologies and environmentally responsible comfort solutions help customers be more productive, improve efficiency, reduce emissions, safeguard the world’s food supply and conserve vital resources amid a fast-evolving regulatory landscape.

James (Jamie) Froedge
Executive President,
Commercial & Residential Solutions

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Emerson’s distinctive Purpose is beyond business; it’s about making a positive impact on society. It promises to energize employees, support customer loyalty and deliver long-term value to our investors. Our ESG focus is embedded here as we drive innovation to make the world healthier, safer, smarter and more sustainable.

Katherine Button Bell
Senior Vice President, Chief Marketing Officer

”

Many of our customers have actively considered embarking on a digital transformation journey for years. The COVID-19 pandemic created a new urgency, accelerating automation as industries quickly pivoted to continue meeting needs with a reduced and distanced workforce. Our teams have decades of experience in digital transformation and are adept at demonstrating real return on investment and value to customers. When our customers needed to optimize operations, enhance productivity and achieve unprecedented levels of safety this year, our digital innovation and deep domain expertise empowered us to help.

S. Lal Karsanbhai
Executive President, Automation Solutions

Independent Board Guidance

Evaluating Strategy and Identifying Risks

Emerson Lead Independent Director Dr. Clemens A. H. Boersig provides insight on the Board's important role in governance.

Emerson added Bill Easter as a Board member this year. How will his addition continue to ensure the Board successfully drives strategy?

We serve at our best when we leverage our collective knowledge, which is why Emerson works hard to ensure the Board is a diverse group with deep expertise, not only in their respective industries but also in perspective. We were pleased this year to welcome Bill Easter, retired chairman, president and chief executive officer of DCP Midstream, LLC. He will bring 35 years of industrial leadership and acumen to the Board, as well as his own unique experiences and perspectives.

Emerson has made several acquisitions in the last year. What is the Board's role in evaluating risks and optimizing and managing the business portfolio?

One of the Board's roles is to help Emerson review opportunities for investment and manage risk, which is especially important to ensure the company's business mix is optimized for future growth and cash generation for shareholders. Emerson and the Board are very active in managing the business portfolio; this includes employing a thorough, yearly Emerson Enterprise Risk Process, overseen by the audit committee, to set strategy and identify the most important financial and operational opportunities and threats facing the company. Ultimately, this planning process helps us adapt to short-term changes in the business environment, act on macro trends and identify how an investment would fit into Emerson's business strategy.

What is the Board's role in the upcoming CEO succession planning process and in developing and evaluating the next generation of Emerson's leadership team?

The Board is very involved in CEO succession management, actively managing the evaluation and selection of Emerson's next chief executive. We also play an ongoing role in nurturing the entire leadership team and ensuring the right people and plans are in place to serve Emerson's customers and shareholders. Emerson has a deep bench of leaders, and we are intentional when it comes to developing this next generation, meeting with them personally to foster relationships and regularly inviting them to discuss plans with the Board. Ensuring alignment of stakeholders is also something we discuss regularly as a part of leader development and engagement. For example, this year the Board decided to add a relative total shareholder return modifier to Emerson's long-term incentive structure in order to ensure shareholder return remains top of mind for Emerson's leaders.

What has made you most proud to serve on Emerson's Board in 2020?

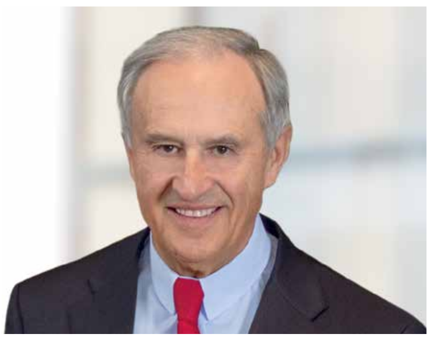
Emerson's role and success in supporting essential businesses during the COVID-19 pandemic. It was gratifying to see the company's adaptability in action as Emerson stepped up to lead its industries and support customers and employees through a difficult time.

Board of Directors

Mark A. Blinn

William H. Easter III

Candace Kendle



Clemens A. H. Boersig

David N. Farr

Lori M. Lee

Joshua B. Bolten

Gloria A. Flach

Matthew S. Levatich

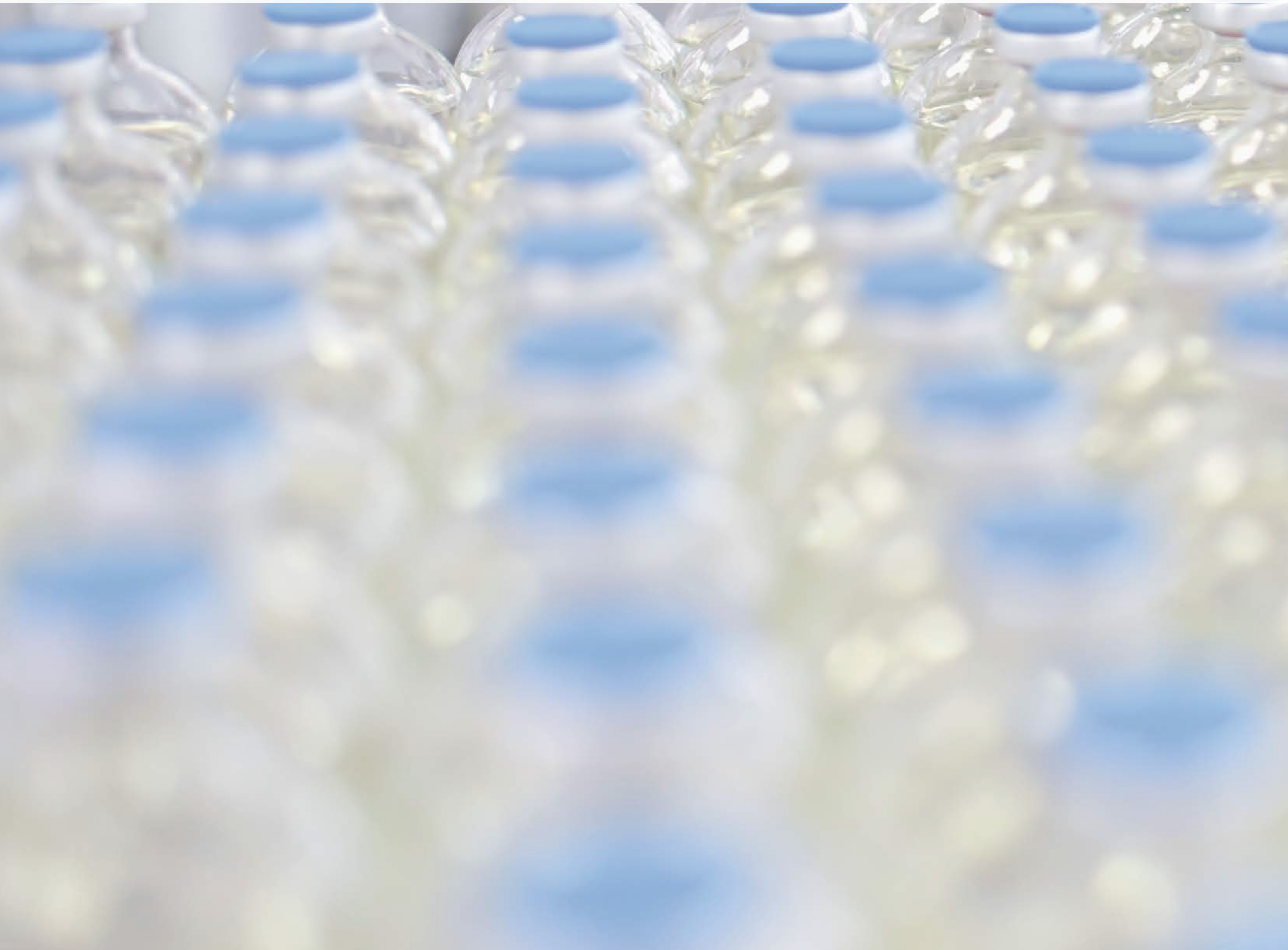
Martin S. Craighead

Arthur F. Golden

James S. Turley

Healthier

We believe that health is vital to human advancement. Emerson's expertise and technologies in life sciences, food and beverage, the cold chain and environmentally responsible home comfort are helping make it more possible than ever for people to live comfortable and health-conscious lives.



~1,000

The number of Emerson project engineering and consulting employees dedicated to life sciences projects worldwide.

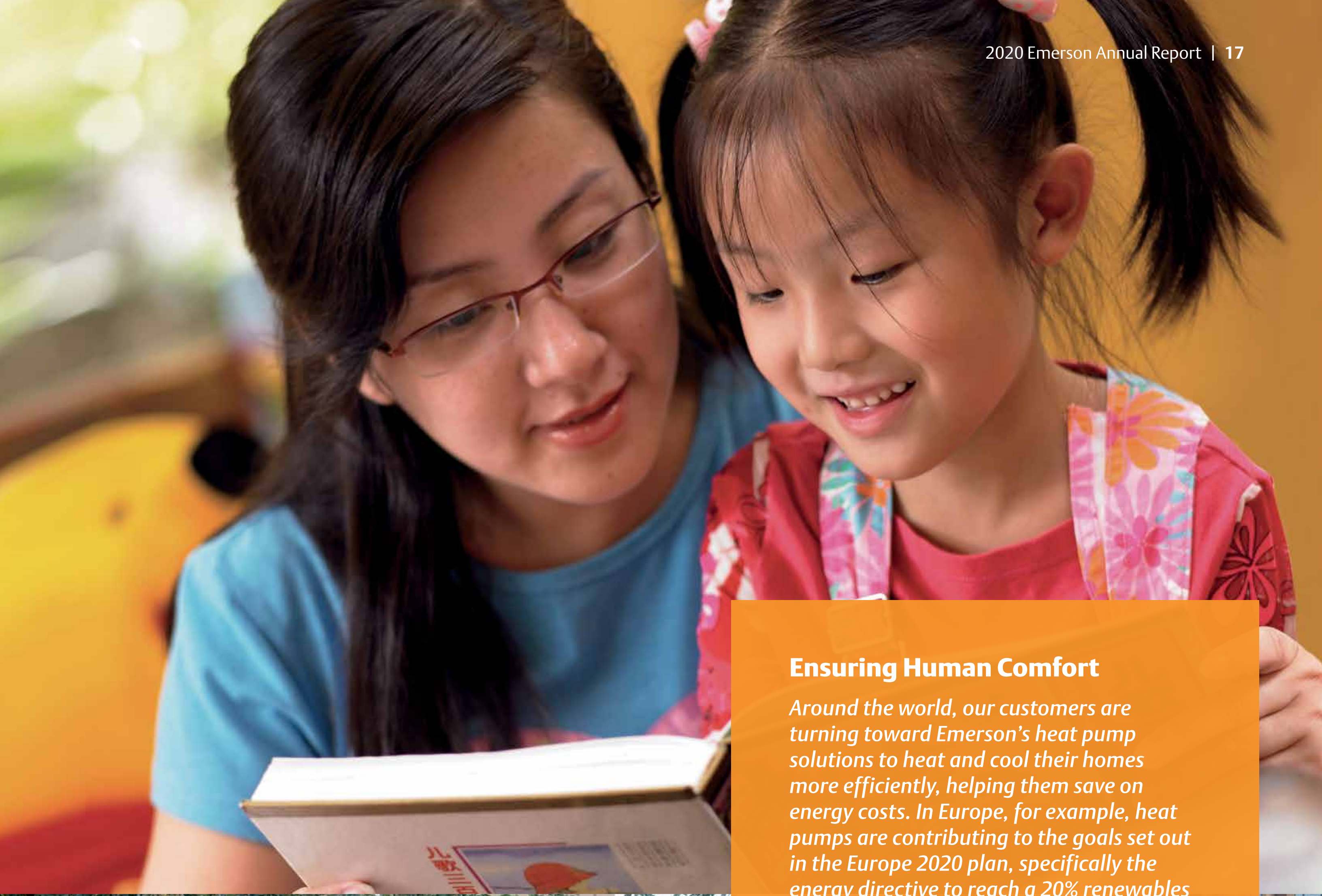
Advancing Critical Medicine

Our automation expertise and technology are helping life sciences and medical device manufacturers maintain safety and quality, get life-saving medications and equipment to market faster and increase production for the patients relying on their care. With 30 locations and nearly 1,000 project engineering and consulting employees dedicated to active life sciences projects around the world, Emerson has the automation industry's largest dedicated life sciences engineering and consulting organization. We're helping customers produce therapies for everything from diabetes and cancer to potential COVID-19 vaccines. We have more than 3,000 installed systems in life science sites globally, including at all the top 20 science and pharmaceutical manufacturing companies. A leading biologics manufacturer, for example, has been able to increase production, reduce downtime and save nearly $6 million per year using our integrated approach to automation and advanced software.

Reducing Food Waste

An estimated 30% of food is wasted along the supply chain, according to the UN Food and Agriculture Organization. Our cold chain technology helps customers keep perishable food at proper temperatures. Emerson's end-to-end data, services and expertise are unlocking valuable insights and empowering visibility across the complete cold chain to ensure food quality, extend the life of perishable goods and reduce waste from farm to fork.

In addition, our Vilter carbon dioxide compressors, which use carbon dioxide as a refrigerant with low global warming potential (GWP), are helping customers control storage temperatures sustainably by meeting high-capacity needs with high performance, efficiency and lowered ammonia charge.



Ensuring Human Comfort

Around the world, our customers are turning toward Emerson's heat pump solutions to heat and cool their homes more efficiently, helping them save on energy costs. In Europe, for example, heat pumps are contributing to the goals set out in the Europe 2020 plan, specifically the energy directive to reach a 20% renewables target. And in China, the energy-efficient technology is providing customers efficient heat in low ambient temperatures, reducing reliance on coal-fired heating plants and decreasing greenhouse gas (GHG) emissions. We're also partnering with Hydro Quebec, an electric utility provider in Canada, to test an innovative heat pump solution with low GHG emissions.

Safer

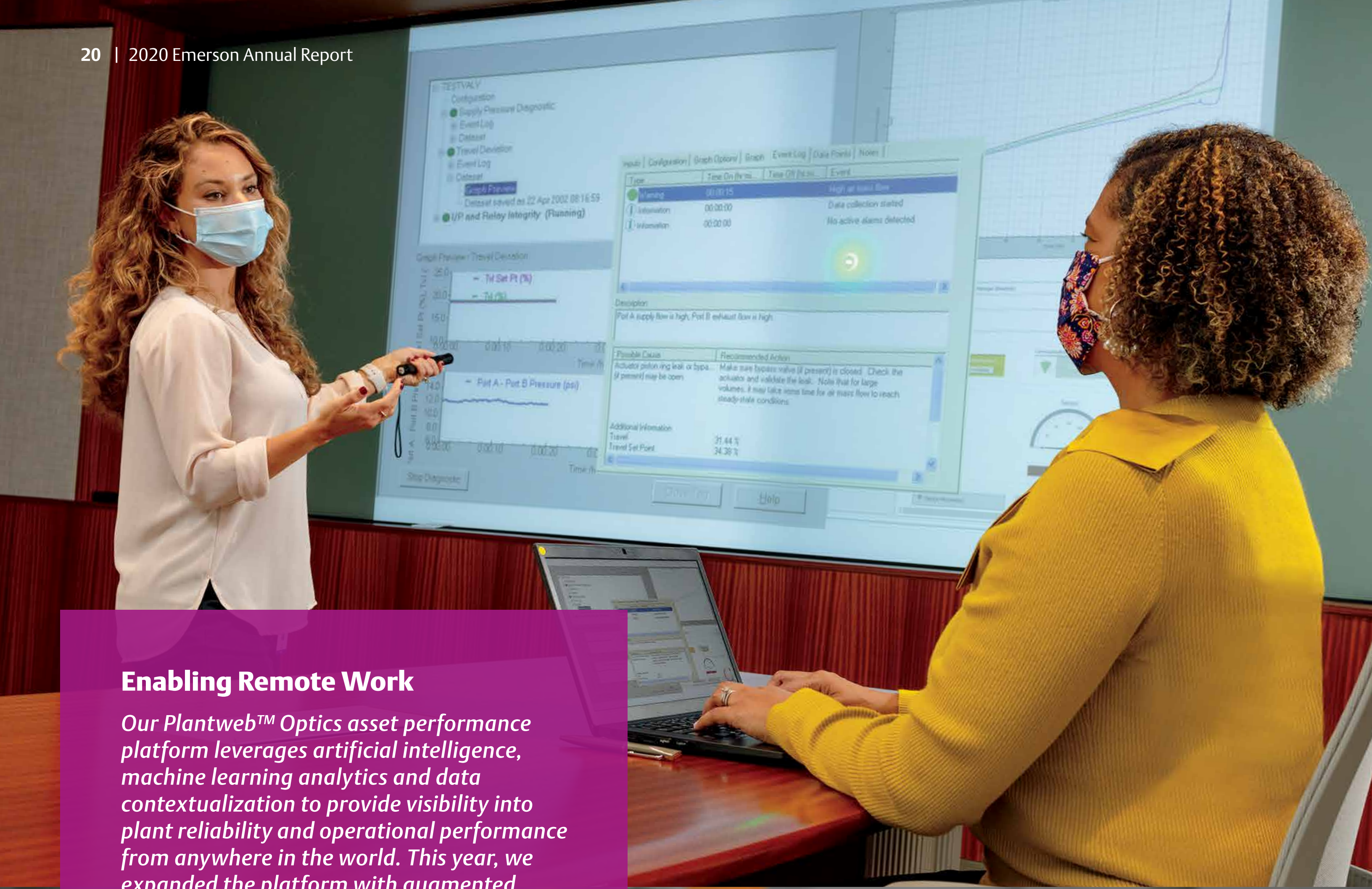
Our customers operate in the world's most critical industries, where employee and customer safety are paramount. With deep experience and a broad portfolio of safety and security solutions, Emerson is helping customers reduce risk, protect employees and communities, and operate with increased reliability and certainty.

70%

Location Awareness technology can help address more than 70% of common personnel-recordable incidents.

Protecting Industry Workers

Emerson's location tracking solution helps our customers monitor worker safety in real time. Our Location Awareness technology uses WirelessHART® networks, a secure standard adopted in industrial plants worldwide, along with battery-powered anchors and rechargeable personnel location tags. This enables enhanced geofencing and monitoring, improved safety mustering and more effective safety alerts. And, this year, we enhanced this offering to include social density management and contact tracing to protect employee health and help essential industries safely continue operations while social distancing.



Enabling Remote Work

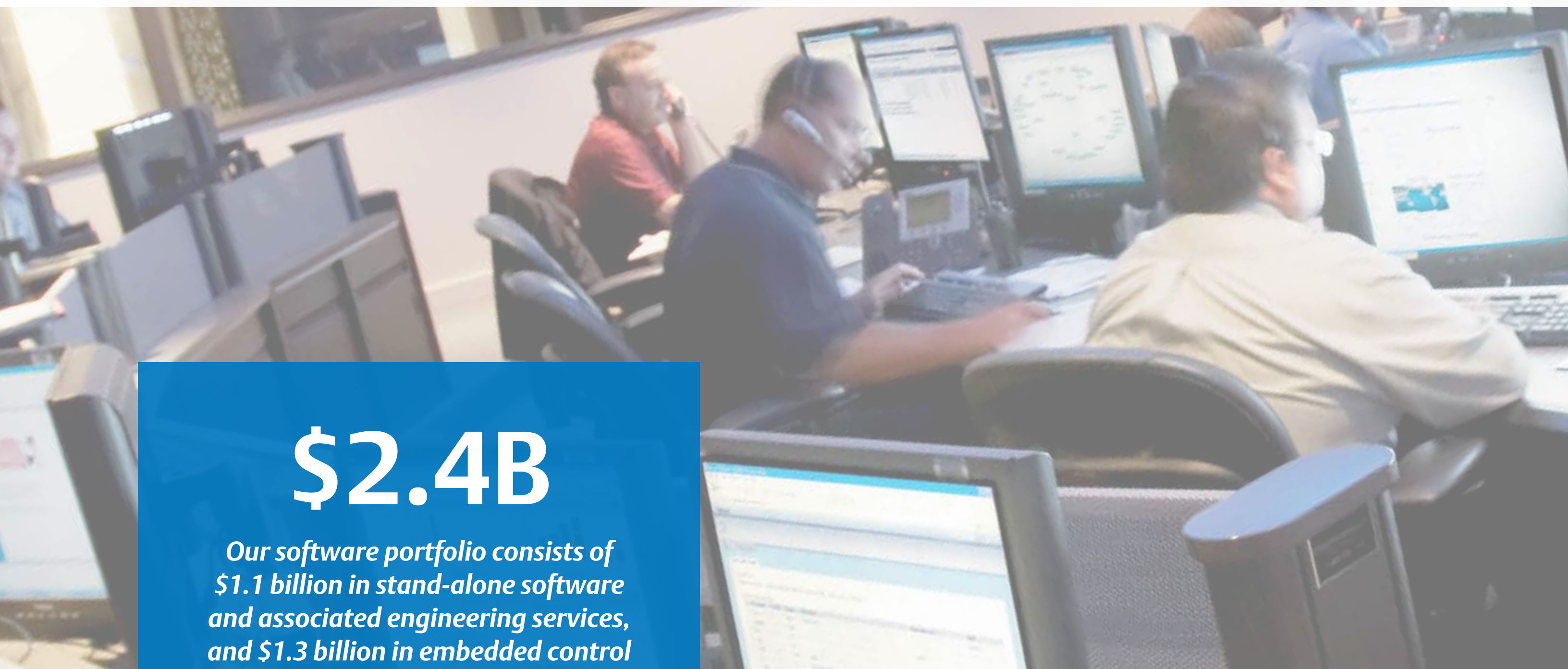
Our Plantweb™ Optics asset performance platform leverages artificial intelligence, machine learning analytics and data contextualization to provide visibility into plant reliability and operational performance from anywhere in the world. This year, we expanded the platform with augmented reality (AR) technology, enhancing access to real-time diagnostics, analytics and remote assistance for industrial plant workers responsible for maintaining and optimizing plant equipment. This enhancement is helping workers continue to monitor asset health and improve productivity, collaboration and operational performance from safer locations, instead of a potentially hazardous or remote plant environment.

Protecting the Safety of Medicine

Global demand for temperature-controlled pharmaceuticals is expected to rise 59% by 2023. Our monitoring technologies are helping the industry meet this unprecedented need. In fact, each year, more than 300,000 Emerson sensors help the global health care and pharmaceutical supply chain capture 8 billion data points to help maintain quality and safety. This data protects the delivery of medical goods and supplies for approximately 900 health care customers — including some of the largest hospitals in the world.

Smarter

Our advanced technologies have transformed the ways our customers operate, empowering improvements in efficiency, productivity, reliability and profitability. Emerson customers have a trusted partner to help navigate the digital transformation journey and implement solutions with a real ROI that drives their businesses forward.



$2.4B

Our software portfolio consists of $1.1 billion in stand-alone software and associated engineering services, and $1.3 billion in embedded control and software-enabled devices.

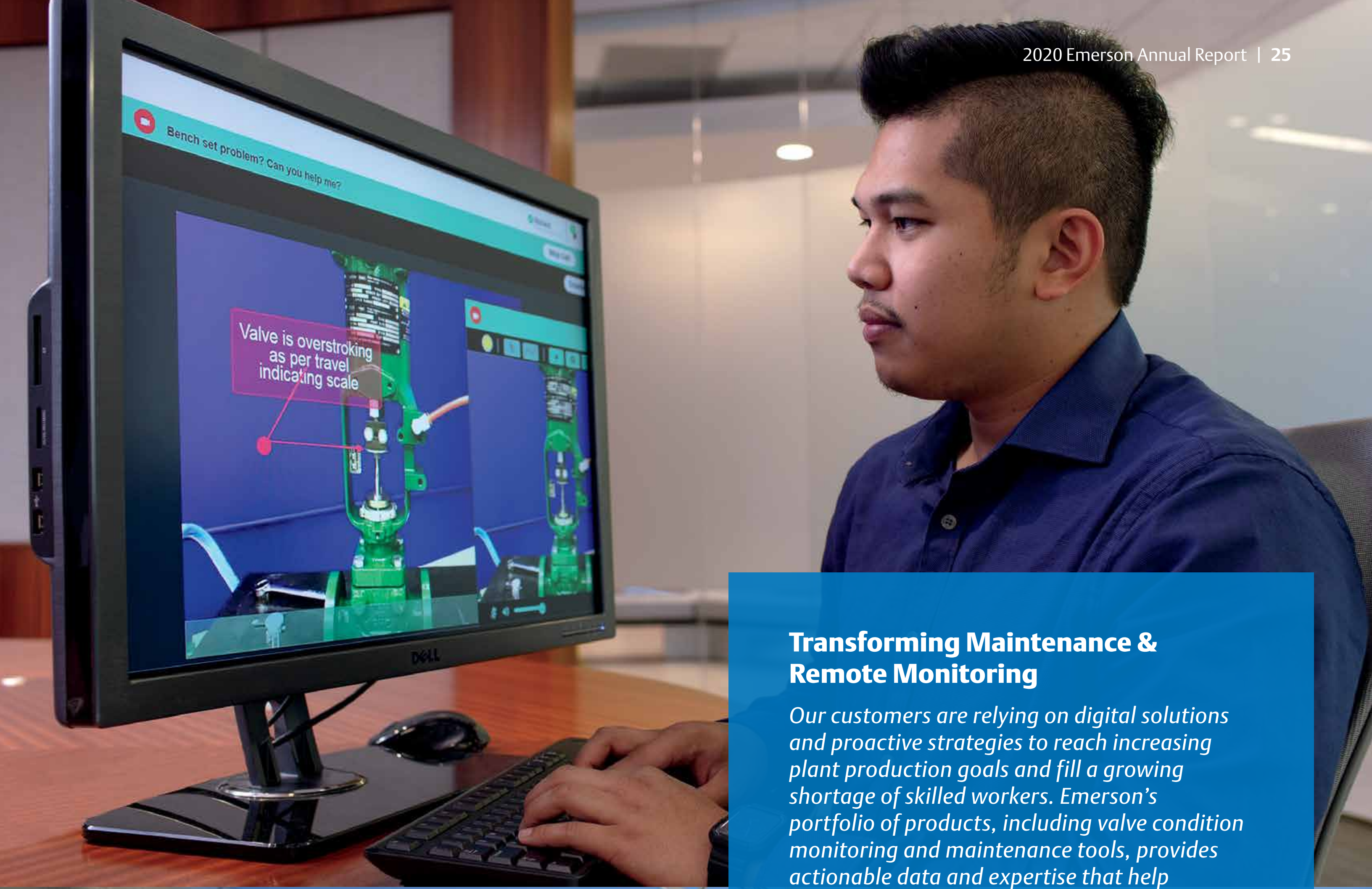
Empowering Bold & Disruptive Innovation

We're strengthening our $2.4 billion software portfolio to drive new solutions for customers that help them generate value. Through organic development, partnerships and acquisitions, these software capabilities are helping customers digitally transform their operations and implement data management and control architectures that provide and implement insights based on data from devices, instruments and sensors.

At our Helix Innovation Center, a 40,000-square-foot facility in Dayton, Ohio, we provide a collaborative environment for researchers, academia and industry professionals to develop solutions to industry challenges. The Helix includes a fully functional smart home to test ambient temperature control and solar heating, a licensed high density commercial kitchen to test connected concepts and controls as well as Grind2Energy technology, and a retail center to test and optimize our food safety, lighting and HVAC solutions for supermarkets.

Safeguarding Data & Information

Cybersecurity is an integral part of any conversation about digital transformation, and more relevant now than ever with the increase of remote working. We're helping customers leverage Industrial Internet of Things technologies that prevent exposure to cyber incidents and empower workers with the knowledge, behaviors and tools they need to reduce threats. With our expertise and technologies, customers are building and applying robust defensive strategies to ward off attackers and stay in control of their facilities.



Transforming Maintenance & Remote Monitoring

Our customers are relying on digital solutions and proactive strategies to reach increasing plant production goals and fill a growing shortage of skilled workers. Emerson's portfolio of products, including valve condition monitoring and maintenance tools, provides actionable data and expertise that help customers reduce downtime and ensure valves and other equipment are operating as expected.

To help provide better tools for maintenance – especially challenging for facilities with thousands of devices – our secure, scalable MyEmerson ecosystem keeps a digital installed base record of devices at a plant and provides a single record of their location, specifications, product instructions, maintenance history and spare parts, allowing facility planners and technicians to make faster decisions and work more efficiently – whether onsite or remote.

More Sustainable

We have a pivotal role to play in the global effort to activate sustainable business practices and manage resources efficiently. In addition to our internal sustainability efforts, Emerson technologies and expertise are helping customers achieve sustainability targets, fulfill environmental regulations and implement responsible solutions.

23%

Sensi thermostats can save users this much HVAC energy consumption by adjusting the temperature using flexible scheduling, remote access and geofencing.

Enabling Carbon Capture

Carbon capture utilization and storage (CCUS) processes allow industrial facilities to reduce carbon dioxide emissions – and our DeltaV technologies, valves and instrumentation are helping companies seamlessly make this a reality. The Abu Dhabi National Oil Company (ADNOC), for example, is using Emerson technologies in its Al Reyadah facility, the world's first fully commercial CO_2 capture facility from the iron and steel industry, and the first commercial scale carbon capture plant in the Middle East. The facility is critical to achieving ADNOC's sustainability goals, and it captures the CO_2 equivalent of 1 million acres of forest.

Advancing Cleaner Power & Energy

Our robust software is promoting sustainability in the global power industry. Acquisitions we made this year are broadening our capabilities in this area, including American Governor, a leader in hydroelectric turbine controls that enable utilities to provide reliable power highly responsive to the dynamic needs of the electrical grid. Open Systems International, Inc., which we acquired in the fall, is a leading operations technology software provider helping the power industry transform and digitize operations to incorporate renewable energy sources. In addition, our expanded partnership with Mitsubishi Hitachi Power Systems Americas, a leading global provider of power generation and energy storage solutions, is helping drive the next generation of power plants with digital solutions that increase efficiencies, reduce carbon emissions, strengthen reliability and lower maintenance costs.

Supporting Regulatory Compliance

Through process optimization and automation, customers are identifying and implementing strategies for lower emissions and improved resource efficiency. Biomethane injection into the grid, for example, is helping companies meet regulatory requirements and contribute toward the European Union's renewable energy targets. Emerson's scalable, smart and integrated systems and solutions are enabling natural gas operators to help implement solutions that comply with current legislation to help ensure safe and consistent production, and lower lifecycle costs. And in the heating, ventilation, air conditioning and refrigeration (HVACR) industry, we're innovating products and solutions to help customers transition toward low global warming potential (GWP) solutions as regulation of refrigerants and energy efficiency requirements increase.

Promoting Energy-Efficient Comfort

Our Sensi™ suite of smart home solutions uses geofencing, remote access and flexible scheduling to keep homeowners in the know and in control of their home comfort. In 2020, Sensi became the first thermostat brand named as ENERGY STAR Partner of the Year, the highest level of recognition by the U.S. Environmental Protection Agency for organizations making outstanding contributions to protecting the environment through energy efficiency achievements.

We also enhanced our connected comfort business strategy with the acquisition of Verdant and launch of Sensi Predict smart HVAC. Verdant, a leader in energy management solutions for the hotel and hospitality industries, broadens our energy management, efficiency and optimization capabilities for multifamily residential units and commercial applications. And Sensi Predict, a predictive maintenance system, is helping homeowners avoid costly and unexpected HVAC repairs, while providing contractors real-time system insights that drive business predictability and service.

Financial Review

Report of Management

The Company's management is responsible for the integrity and accuracy of the financial statements. Management believes that the financial statements for each of the years in the three-year period ended September 30, 2020 have been prepared in conformity with U.S. generally accepted accounting principles appropriate in the circumstances. In preparing the financial statements, management makes informed judgments and estimates where necessary to reflect the expected effects of events and transactions that have not been completed. The Company's disclosure controls and procedures ensure that material information required to be disclosed is recorded, processed, summarized and communicated to management and reported within the required time periods.

In meeting its responsibility for the reliability of the financial statements, management relies on a system of internal accounting controls. This system is designed to provide reasonable assurance that assets are safeguarded and transactions are executed in accordance with management's authorization and recorded properly to permit the preparation of financial statements in accordance with U.S. generally accepted accounting principles. The design of this system recognizes that errors or irregularities may occur and that estimates and judgments are required to assess the relative cost and expected benefits of the controls. Management believes that the Company's internal accounting controls provide reasonable assurance that errors or irregularities that could be material to the financial statements are prevented or would be detected within a timely period.

The Audit Committee of the Board of Directors, which is composed solely of independent directors, is responsible for overseeing the Company's financial reporting process. The Audit Committee meets with management and the Company's internal auditors periodically to review the work of each and to monitor the discharge by each of its responsibilities. The Audit Committee also meets periodically with the independent auditors, who have free access to the Audit Committee and the Board of Directors, to discuss the quality and acceptability of the Company's financial reporting and internal controls, as well as nonaudit-related services.

The independent auditors are engaged to express an opinion on the Company's consolidated financial statements and on the Company's internal control over financial reporting. Their opinions are based on procedures that they believe to be sufficient to provide reasonable assurance that the financial statements contain no material errors and that the Company's internal controls are effective.

Management's Report on Internal Control Over Financial Reporting

The Company's management is responsible for establishing and maintaining adequate internal control over financial reporting for the Company. With the participation of the Chief Executive Officer and the Chief Financial Officer, management conducted an evaluation of the effectiveness of internal control over financial reporting based on the framework and the criteria established in *Internal Control - Integrated Framework* (2013), issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this evaluation, management has concluded that internal control over financial reporting was effective as of September 30, 2020.

The Company's auditor, KPMG LLP, an independent registered public accounting firm, has issued an audit report on the effectiveness of the Company's internal control over financial reporting.

David N. Farr

Chairman of the Board
and Chief Executive Officer

Frank J. Dellaquila

Senior Executive Vice President
and Chief Financial Officer

Results of Operations

Years ended September 30 | (Dollars in the Financial Review section are in millions, except per share amounts or where noted)

	2018	2019	**2020**	19 vs. 18	**20 vs. 19**
Net sales	$17,408	18,372	**16,785**	6%	**(9)%**
Gross profit	$ 7,432	7,815	**7,009**	5%	**(10)%**
Percent of sales	*42.7%*	*42.5%*	***41.8%***		
SG&A	$ 4,269	4,457	**3,986**		
Percent of sales	*24.5%*	*24.2%*	***23.8%***		
Other deductions, net	$ 337	325	**532**		
Amortization of intangibles	$ *211*	*238*	***239***		
Restructuring costs	$ *65*	*95*	***284***		
Interest expense, net	$ 159	174	**156**		
Earnings before income taxes	$ 2,667	2,859	**2,335**	7%	**(18)%**
Percent of sales	*15.3%*	*15.6%*	***13.9%***		
Net earnings common stockholders	$ 2,203	2,306	**1,965**	5%	**(15)%**
Percent of sales	*12.7%*	*12.6%*	***11.7%***		
Diluted EPS	$ 3.46	3.71	**3.24**	7%	**(13)%**
Return on common stockholders' equity	24.9%	26.8%	**23.6%**		
Return on total capital	20.6%	19.5%	**16.8%**		

COVID-19 UPDATE

Emerson's business, operations and end markets were negatively impacted in 2020 by the global outbreak and rapid spread of the coronavirus (COVID-19). As the situation rapidly evolved, the Company's leadership and global operations remained focused on safely serving our customers and protecting the health and safety of our employees. In response to the pandemic, the Company took actions aligned with the World Health Organization and the Centers for Disease Control and Prevention to protect its workforce so they could more safely and effectively perform their work. The Company embraced guidelines set by these organizations, including social distancing, good hygiene, restrictions on employee travel and in-person meetings, and changes to employee work arrangements including remote work arrangements where appropriate.

The outbreak began in the Company's second fiscal quarter and resulted in a rapid decline in demand which impacted most of the Company's end markets and geographies in the second half of the year, particularly in North America. Overall, sales declined 9 percent compared with the prior year, consistent with management's guidance provided in April 2020. Demand has begun to return in the Commercial & Residential Solutions business and stabilize in the Automation Solutions business.

In response to COVID-19, the Company increased its restructuring and cost reset actions that began in the third quarter of fiscal 2019. These incremental efforts and prior actions resulted in fiscal 2020 savings of approximately $220 and supported the Company's profitability despite the headwind from lower sales. The Company also benefited in the second half of the year from a salary and hiring freeze, furloughs, compensation reductions for the Board of Directors and key executives across Emerson, and curtailed travel, meetings and discretionary spending. Overall, selling, general and administrative expenses as a percent of sales decreased 0.9 percentage points in the second half of the year despite the negative impact from deleverage on lower sales, and the restructuring initiatives are expected to yield improved operating margins as sales volumes recover.

The Company also increased its cash holdings to support liquidity in response to the potential effects of COVID-19. In April 2020, the Company issued $1.5 billion of long-term debt at a weighted-average rate of approximately 2.15% to further manage its liquidity and balance sheet, and in September 2020, issued an additional $750 of long-term debt at 0.875%, a portion of which was used to fund the acquisition of Open Systems International, Inc., which closed on October 1, 2020. The Company also took actions to conservatively manage its cash through reductions in planned capital expenditures for fiscal 2020 and by suspending its share repurchases in the third quarter. The Company's long-term debt ratings, which are A2 by Moody's Investors Service and A by Standard and Poor's, remain unchanged. Management's actions to adjust to the lower demand caused by COVID-19 supported the Company's commitment to its dividend plan and on November 3, 2020, it approved an increase to its dividend for the 65th consecutive year.

See "Outlook" and Item 1A – "Risk Factors" in our Annual Report on Form 10-K for additional discussion of the impacts of COVID-19 and the Company's response.

OVERVIEW

Overall, sales for 2020 were $16.8 billion, down 9 percent compared with the prior year, and were adversely impacted by foreign currency translation which deducted 1 percent. During the year, the Company took restructuring and other actions to protect its operating results from the deleverage caused by lower sales.

Net earnings common stockholders were $1,965 in 2020, down 15 percent compared with prior year earnings of $2,306, and diluted earnings per share were $3.24, down 13 percent versus $3.71 per share in 2019, largely due to higher restructuring charges related to the Company's initiatives to improve operating margins.

The Company generated operating cash flow of $3.1 billion in 2020, an increase of $77, or 3 percent, due in part to lower working capital needs associated with lower demand. The Company also took actions to ensure adequate liquidity and successfully raised over $2.2 billion in the debt markets.

NET SALES

Net sales for 2020 were $16.8 billion, a decrease of $1.6 billion, or 9 percent compared with 2019. Sales decreased $1,047 in Automation Solutions and $526 in Commercial & Residential Solutions. Underlying sales, which exclude foreign currency translation, acquisitions and divestitures, decreased 8 percent ($1.4 billion) on lower volume. Divestitures net of acquisitions subtracted $11 and foreign currency translation subtracted 1 percent ($161). Underlying sales decreased 11 percent in the U.S. and 5 percent internationally.

Net sales for 2019 were $18.4 billion, an increase of $1.0 billion, or 6 percent compared with 2018. Sales increased $761 in Automation Solutions and $187 in Commercial & Residential Solutions. Underlying sales increased 3 percent ($526) on higher volume and slightly higher price. Acquisitions added 5 percent ($759) while foreign currency translation subtracted 2 percent ($321). Underlying sales increased 2 percent in the U.S. and 4 percent internationally.

INTERNATIONAL SALES

Emerson is a global business with international sales representing 56 percent of total sales in 2020, including U.S. exports. The Company generally expects faster economic growth in emerging markets in Asia, Latin America, Eastern Europe and Middle East/Africa.

International destination sales, including U.S. exports, decreased 6 percent, to $9.4 billion in 2020, reflecting decreases in both the Automation Solutions and Commercial & Residential Solutions businesses. U.S. exports of $1.0 billion were down 10 percent compared with 2019. Underlying international destination sales were down 5 percent, as foreign currency translation had a 1 percent unfavorable impact on the comparison. Underlying sales decreased 4 percent in Europe, 4 percent in Asia, Middle East & Africa (China down 5 percent), 7 percent in Latin America and 11 percent in Canada. Origin sales by international subsidiaries, including shipments to the U.S., totaled $8.5 billion in 2020, down 5 percent compared with 2019.

International destination sales, including U.S. exports, increased 5 percent, to $10.0 billion in 2019, reflecting increases in both the Automation Solutions and Commercial & Residential Solutions businesses. U.S. exports of $1.1 billion were up 2 percent compared with 2018. Underlying international destination sales were up 4 percent, as acquisitions had a 5 percent favorable impact, while foreign currency translation had a 4 percent unfavorable impact on the comparison. Underlying sales increased 3 percent in Europe, 2 percent in Asia, Middle East & Africa (China up 3 percent), 17 percent in Latin America and 4 percent in Canada. Origin sales by international subsidiaries, including shipments to the U.S., totaled $9.0 billion in 2019, up 5 percent compared with 2018.

ACQUISITIONS AND DIVESTITURES

On October 1, 2020, the Company completed the acquisition of Open Systems International, Inc., a leading operations technology software provider in the global power industry, for approximately $1.6 billion, net of cash acquired. This business, which has annual sales of approximately $170, will be reported in the Automation Solutions segment.

In 2020, the Company acquired three businesses, two in the Automation Solutions segment and one in the Climate Technologies segment, for $126, net of cash acquired.

The Company acquired eight businesses in 2019, all in the Automation Solutions segment, for $469, net of cash acquired. These eight businesses had combined annual sales of approximately $300.

On July 17, 2018, the Company completed the acquisition of Aventics, a global provider of smart pneumatics technologies that power machine and factory automation applications, for $622, net of cash acquired. This business, which has annual sales of approximately $425, is included in the Industrial Solutions product offering within the Automation Solutions segment.

On July 2, 2018, the Company completed the acquisition of Textron's tools and test equipment business for $810, net of cash acquired. This business, with annual sales of approximately $470, is a manufacturer of electrical and utility tools, diagnostics, and test and measurement instruments, and is reported in the Tools & Home products segment.

On December 1, 2017, the Company acquired Paradigm, a provider of software solutions for the oil and gas industry, for $505, net of cash acquired. This business had annual sales of approximately $140 and is included in the Measurement & Analytical Instrumentation product offering within Automation Solutions.

In fiscal 2018, the Company also acquired four smaller businesses, two in the Automation Solutions segment and two in the Climate Technologies segment.

On October 2, 2017, the Company sold its residential storage business for $200 in cash, and recognized a small pretax gain and an after-tax loss of $24 ($0.04 per share) in 2018 due to income taxes resulting from nondeductible goodwill. The Company realized approximately $150 in after-tax cash proceeds from the sale.

See Note 4 for further information on acquisitions and divestitures, including pro forma financial information.

COST OF SALES

Cost of sales for 2020 were $9,776, a decrease of $781 compared with $10,557 in 2019, primarily due to lower volume. Gross profit was $7,009 in 2020 compared to $7,815 in 2019, while gross margin decreased 0.7 percentage points to 41.8 percent, reflecting deleverage on lower sales volume and unfavorable mix within Automation Solutions, partially offset by favorable price-cost.

Cost of sales for 2019 were $10,557, an increase of $581 compared with $9,976 in 2018. The increase is primarily due to acquisitions and higher volume, partially offset by the impact of foreign currency translation. Gross profit was $7,815 in 2019 compared to $7,432 in 2018. Gross margin decreased 0.2 percentage points to 42.5 percent, reflecting unfavorable mix and the impact of acquisitions, partially offset by savings from cost reduction actions. Gross margin was 42.7 percent in 2018.

SELLING, GENERAL AND ADMINISTRATIVE EXPENSES

Selling, general and administrative (SG&A) expenses of $3,986 in 2020 decreased $471 compared with 2019 and SG&A as a percent of sales decreased 0.4 percentage points to 23.8 percent. Savings of approximately $220 from the Company's restructuring and cost reset actions that began in the third quarter of fiscal 2019 offset deleverage on lower sales volume. The Company's restructuring initiatives are expected to yield improved operating margins as sales volumes recover. The Company also benefited in the second half of the year from a salary and hiring freeze, furloughs, compensation reductions for the Board of Directors and key executives across Emerson, and curtailed travel, meetings and discretionary spending.

SG&A expenses of $4,457 in 2019 increased $188 compared with 2018 due to acquisitions and higher volume. SG&A as a percent of sales of 24.2 percent decreased 0.3 percentage points due to leverage on higher volume and lower incentive stock compensation of $96, reflecting a decreasing stock price in the current year compared to an increasing stock price in the prior year, partially offset by a negative impact from acquisitions of 0.4 percentage points and higher investment spending.

OTHER DEDUCTIONS, NET

Other deductions, net were $532 in 2020, an increase of $207 compared with 2019. The increase reflects increased restructuring costs of $189 and an unfavorable impact on comparisons from pensions of $48, partially offset by lower acquisition/divestiture and litigation costs. See Note 5.

Other deductions, net were $325 in 2019, a decrease of $12 compared with 2018. The decrease primarily reflects lower acquisition/divestiture costs of $29, pension expenses of $42 and foreign currency transactions of $13, partially offset by higher intangibles amortization and restructuring expense of $27 and $30, respectively.

INTEREST EXPENSE, NET

Interest expense, net was $156, $174 and $159 in 2020, 2019 and 2018, respectively. The decrease in 2020 reflects the maturity of long-term debt with relatively higher interest rates, partially offset by lower interest income. The increase in 2019 was due to lower interest income.

EARNINGS BEFORE INCOME TAXES

Pretax earnings of $2,335 decreased $524 in 2020, down 18 percent compared with 2019. Earnings decreased $424 in Automation Solutions and $153 in Commercial & Residential Solutions. Costs reported at Corporate decreased $35, as an increase in unallocated pension and postretirement costs of $55 was more than offset by a decline in all other corporate costs of $90. See the Business discussion that follows and Note 18.

Pretax earnings of $2,859 increased $192 in 2019, up 7 percent compared with 2018. Earnings increased $61 in Automation Solutions and decreased $81 in Commercial & Residential Solutions, while costs reported at Corporate decreased $227.

INCOME TAXES

On December 22, 2017, the U.S. government enacted tax reform, the Tax Cuts and Jobs Act (the "Tax Act"), which made comprehensive changes to U.S. federal income tax laws by moving from a global to a modified territorial tax regime. The Tax Act includes a reduction of the U.S. corporate income tax rate from 35 percent to 21 percent in calendar year 2018 along with the elimination of certain deductions and credits, and a one-time "deemed repatriation" of accumulated non-U.S. earnings. During 2018, the Company recognized a net tax benefit of $189 ($0.30 per share) due to impacts of the Tax Act, consisting of a $94 benefit on revaluation of net deferred income tax liabilities to the lower tax rate, $35 of expense for the tax on deemed repatriation of accumulated non-U.S. earnings and withholding taxes, and the reversal of $130 accrued in previous periods for the planned repatriation of non-U.S. cash. The Company completed its accounting for the Tax Act in the first quarter of fiscal 2019.

Effective in fiscal 2019, the Tax Act also subjects the Company to U.S. tax on global intangible low-taxed income earned by certain of its non-U.S. subsidiaries. The Company has elected to recognize this tax as a period expense when it is incurred. In the second quarter of fiscal 2019, the Company recorded a $13 ($0.02 per share) tax benefit due to the issuance of final regulations related to the one-time tax on deemed repatriation.

On March 27, 2020, the CARES Act was enacted in response to the COVID-19 pandemic, and among other things, provides tax relief to businesses. Tax provisions of the CARES Act include the deferral of certain payroll taxes, relief for retaining employees, and other provisions. The Company expects to defer $75 of certain payroll taxes through the end of calendar year 2020, of which $48 was deferred through September 30, 2020.

Income taxes were $345, $531 and $443 for 2020, 2019 and 2018, respectively, resulting in effective tax rates of 15 percent, 19 percent and 17 percent in 2020, 2019 and 2018, respectively. The rates in all years include benefits from restructuring subsidiaries of $103 ($0.17 per share), $74 ($0.12 per share) and $53 ($0.08 per share), respectively. The 2020 rate also included the impact of a research and development tax credit study, while 2019 and 2018 included discrete tax benefits due to the impacts of the Tax Act described above. See Note 14.

NET EARNINGS AND EARNINGS PER SHARE; RETURNS ON EQUITY AND TOTAL CAPITAL

Net earnings attributable to common stockholders in 2020 were $1,965, down 15 percent compared with 2019, and diluted earnings per share were $3.24, down 13 percent compared with $3.71 in 2019. The decline in sales volume, largely attributable to the negative effects of COVID-19, resulted in a decline in operating results of $0.27 per share, while restructuring costs and special advisory fees reduced earnings by $0.42 per share in the current year ($0.12 per share in the prior year). Higher pension expense partially offset by lower stock compensation expense negatively affected comparisons by $0.07 per share and unfavorable foreign currency deducted $0.06 per share. Results were favorably impacted by discrete tax items recognized in the fourth quarter ($0.20 per share), which included the subsidiary restructurings discussed above, while other discrete tax items provided a benefit of $0.08 per share. The prior year included discrete tax benefits of $0.12 per share. Share repurchases and lower interest expense provided a combined benefit of $0.09 per share.

Net earnings attributable to common stockholders in 2019 were $2,306, up 5 percent compared with 2018, and diluted earnings per share were $3.71, up 7 percent, due to modest sales growth and lower corporate expenses. Earnings per share comparisons were also impacted by the prior year net tax benefit due to impacts of the Tax Act of $0.30 per share discussed above, which was partially offset by 2018 first year acquisition accounting charges of $0.09 per share and a $0.04 per share loss on the residential storage business.

Return on common stockholders' equity (net earnings attributable to common stockholders divided by average common stockholders' equity) was 23.6 percent in 2020 compared with 26.8 percent in 2019 and 24.9 percent in 2018. Return on total capital was 16.8 percent in 2020 compared with 19.5 percent in 2019 and 20.6 percent in 2018 (computed as net earnings attributable to common stockholders excluding after-tax net interest expense, divided by average common stockholders' equity plus short- and long-term debt less cash and short-term investments). Lower net earnings negatively impacted returns in 2020. In 2019, higher net earnings benefited the returns, while an increase in long-term debt negatively impacted the return on total capital.

Business Segments

Following is an analysis of segment results for 2020 compared with 2019, and 2019 compared with 2018. The Company defines segment earnings as earnings before interest and income taxes.

AUTOMATION SOLUTIONS

	2018	2019	**2020**	19 vs. 18	**20 vs. 19**
Sales	$11,441	12,202	**11,155**	7%	**(9)%**
Earnings	$ 1,886	1,947	**1,523**	3%	**(22)%**
Margin	16.5%	16.0%	**13.6%**		
Sales by Major Product Offering					
Measurement & Analytical Instrumentation	$ 3,604	3,807	**3,237**	6%	**(15)%**
Valves, Actuators & Regulators	3,749	3,794	**3,589**	1%	**(5)%**
Industrial Solutions	1,967	2,232	**2,012**	14%	**(10)%**
Process Control Systems & Solutions	2,121	2,369	**2,317**	12%	**(2)%**
Total	$11,441	12,202	**11,155**	7%	**(9)%**

2020 vs. 2019 – Automation Solutions sales were $11.2 billion in 2020, a decrease of $1,047, or 9 percent. Underlying sales decreased 8 percent ($963) on lower volume. The Machine Automation Solutions acquisition added $47 and foreign currency translation had a 1 percent ($131) unfavorable impact. Sales for Measurement & Analytical Instrumentation decreased $570, or 15 percent, due to weakness in process industries, primarily in North America. Valves, Actuators & Regulators decreased $205, or 5 percent, reflecting slower demand in most end markets. Industrial Solutions sales decreased $220, or 10 percent, on lower global demand in discrete end markets. Process Control Systems & Solutions decreased $52, or 2 percent, due to weakness in power end markets in China and process end markets in the U.S., partially offset by the Machine Automation Solutions acquisition. Underlying sales decreased 14 percent in the Americas (U.S. down 14 percent), 5 percent in Europe, and 1 percent in Asia, Middle East & Africa (China down 2 percent). Earnings of $1,523 decreased $424 from the prior year, primarily due to higher restructuring expenses of $179 and lower volume. Margin decreased 2.4 percentage points to 13.6 percent, reflecting a negative impact from restructuring expenses of 1.7 percentage points and unfavorable mix. Savings from cost reduction actions offset deleverage on lower sales volume.

2019 vs. 2018 – Automation Solutions sales were $12.2 billion in 2019, an increase of $761, or 7 percent. Underlying sales increased 5 percent ($582) on higher volume and slightly higher price. Acquisitions added 4 percent ($426) and foreign currency translation had a 2 percent ($247) unfavorable impact. Sales for Measurement & Analytical Instrumentation increased $203, or 6 percent, reflecting broad-based strength across process and hybrid end markets. Valves, Actuators & Regulators increased $45, or 1 percent, on favorable global oil and gas demand. Industrial Solutions sales increased $265, or 14 percent, due to the Aventics acquisition ($292), while discrete manufacturing end markets were slow in the U.S. and Europe. Process Control Systems & Solutions increased $248, or 12 percent, driven by greenfield investment and modernization activity, while acquisitions added $134. Underlying sales increased 4 percent in the Americas (U.S. up 2 percent), 4 percent in Europe, and 8 percent in Asia, Middle East & Africa (China up 13 percent), supported by infrastructure investment across the region. Earnings of $1,947 increased $61 from the prior year driven by higher volume and price. Margin decreased 0.5 percentage points to 16.0 percent, reflecting a dilutive impact from acquisitions of 0.7 percentage points and increased restructuring expense of $24. Excluding these items, margin increased due to leverage on the higher volume.

COMMERCIAL & RESIDENTIAL SOLUTIONS

	2018	2019	**2020**	19 vs. 18	**20 vs. 19**
Sales:					
Climate Technologies	$4,454	4,313	**3,980**	(3)%	**(8)%**
Tools & Home Products	1,528	1,856	**1,663**	22 %	**(10)%**
Total	$5,982	6,169	**5,643**	3 %	**(9)%**
Earnings:					
Climate Technologies	$ 972	883	**801**	(9)%	**(9)%**
Tools & Home Products	380	388	**317**	2 %	**(18)%**
Total	$1,352	1,271	**1,118**	(6)%	**(12)%**
Margin	22.6%	20.6%	**19.8%**		

2020 vs. 2019 – Commercial & Residential Solutions sales were $5.6 billion in 2020, a decrease of $526, or 9 percent. Underlying sales decreased 7 percent ($454) on lower volume. The divestiture of two small non-core businesses subtracted 1 percent ($42) and foreign currency translation deducted 1 percent ($30). Climate Technologies sales were $4.0 billion in 2020, a decrease of $333, or 8 percent. Air conditioning and heating sales declined, reflecting a sharp decline in Asia and moderate decline in the U.S. due to the effects of COVID-19. Global cold chain sales were also down, reflecting double-digit declines in Asia and Europe, while North America was down moderately. Tools & Home Products sales were $1.7 billion in 2020, down $193 or 10 percent compared to the prior year, reflecting sharp declines in global professional tools markets. Sales for wet/dry vacuums were down moderately and food waste disposers were down slightly. Overall, underlying sales decreased 7 percent in the Americas (U.S. down 8 percent) and 3 percent in Europe, while Asia, Middle East & Africa decreased 11 percent (China down 11 percent). Earnings were $1,118, a decrease of $153, and margin was down 0.8 percentage points, due to deleverage on lower sales volume and higher restructuring expenses which negatively impacted margins by 0.5 percentage points, partially offset by savings from cost reduction actions and favorable price-cost.

2019 vs. 2018 – Commercial & Residential Solutions sales were $6.2 billion in 2019, an increase of $187, or 3 percent. Underlying sales decreased 1 percent ($59) on lower volume partially offset by higher price. Acquisitions added 5 percent ($320) while foreign currency translation subtracted 1 percent ($74). Climate Technologies sales were $4.3 billion in 2019, a decrease of $141, or 3 percent. HVAC sales were down sharply in Asia, Middle East & Africa, particularly in China air conditioning and heating markets, while growth in the U.S. was modest. Global cold chain sales were down slightly, as modest growth in the U.S. was more than offset by slower demand in Asia and Europe. Tools & Home Products sales were $1.9 billion in 2019, up $328 or 22 percent compared to the prior year, reflecting the tools and test acquisition and modest growth for professional tools. Sales for wet/dry vacuums were up moderately due to higher price, while food waste disposers were flat. Overall, underlying sales increased 3 percent in the Americas (U.S. up 2 percent) and 1 percent in Europe, while Asia, Middle East & Africa decreased 12 percent (China down 15 percent). Earnings were $1,271, a decrease of $81, and margin was down 2.0 percentage points, primarily due to a dilutive impact from the tools and test acquisition of 0.8 percentage points, deleverage on lower volume in the Climate Technologies segment and unfavorable mix.

Financial Position, Capital Resources and Liquidity

Emerson maintains a conservative financial structure to provide the strength and flexibility necessary to achieve our strategic objectives and has been successful in efficiently deploying cash where needed worldwide to fund operations, complete acquisitions and sustain long-term growth. During fiscal 2020, the Company increased its cash holdings to support liquidity in response to the potential effects of COVID-19. In April 2020, the Company issued $1.5 billion of long-term debt at a weighted-average rate of approximately 2.15% to further manage its liquidity and balance sheet, and in September 2020, issued an additional $750 of long-term debt at 0.875%, a portion of which was used to fund the acquisition of Open Systems International, Inc. (OSI), which closed on October 1, 2020.

The Company also took actions to conservatively manage its cash through reductions in planned capital expenditures for fiscal 2020 and by suspending its share repurchases in the third quarter. The Company's long-term debt ratings, which are A2 by Moody's Investors Service and A by Standard and Poor's, remain unchanged. The Company currently believes that sufficient funds will be available to meet its needs for the foreseeable future through operating cash flow, existing resources, short- and long-term debt capacity, or its $3.5 billion revolving backup credit facility under which it has not incurred any borrowings. The Company remains committed to its dividend plan and on November 3, 2020, approved an increase to its dividend for the 65th consecutive year.

Emerson is in a strong financial position, with total assets of $23 billion and stockholders' equity of $8 billion, and has the resources available for reinvestment in existing businesses, strategic acquisitions and managing its capital structure on a short- and long-term basis. The Company continues to generate substantial operating cash flow, including over $3.0 billion in each of the last two years.

CASH FLOW

	2018	2019	**2020**
Operating Cash Flow	$2,892	3,006	**3,083**
Percent of sales	*16.6%*	*16.4%*	***18.4%***
Capital Expenditures	$ 617	594	**538**
Percent of sales	*3.5%*	*3.2%*	***3.2%***
Free Cash Flow (Operating Cash Flow less Capital Expenditures)	$2,275	2,412	**2,545**
Percent of sales	*13.1%*	*13.1%*	***15.2%***
Operating Working Capital	$985	1,113	**866**
Percent of sales	*5.7%*	*6.1%*	***5.2%***

Operating cash flow for 2020 was $3.1 billion, a $77, or 3 percent increase compared with 2019, as lower working capital needs associated with lower demand more than offset a decrease in earnings. Operating cash flow of $3.0 billion in 2019 increased 4 percent compared to $2.9 billion in 2018, due to higher earnings, partially offset by higher operating working capital. At September 30, 2020, operating working capital as a percent of sales was 5.2 percent compared with 6.1 percent in 2019 and 5.7 percent in 2018. Contributions to pension plans were $66 in 2020, $60 in 2019 and $61 in 2018.

Capital expenditures were $538, $594 and $617 in 2020, 2019 and 2018, respectively. Free cash flow (operating cash flow less capital expenditures) was $2.5 billion in 2020, up 6 percent. Free cash flow was $2.4 billion in 2019, compared with $2.3 billion in 2018. The Company is targeting capital spending of approximately $600 in 2021. Net cash paid in connection with acquisitions was $126, $469 and $2.2 billion in 2020, 2019 and 2018, respectively. This does not reflect the OSI acquisition, which closed on October 1, 2020 for approximately $1.6 billion. Proceeds from divestitures were $14 and $201 in 2019 and 2018, respectively.

Dividends were $1,209 ($2.00 per share) in 2020, compared with $1,209 ($1.96 per share) in 2019 and $1,229 ($1.94 per share) in 2018. In November 2020, the Board of Directors voted to increase the quarterly cash dividend 1 percent, to an annualized rate of $2.02 per share.

Purchases of Emerson common stock totaled $942, $1,250 and $1,000 in 2020, 2019 and 2018, respectively, at average per share prices of $57.41, $62.83 and $66.25.

The Board of Directors authorized the purchase of up to 70 million common shares in November 2015. In March 2020, the Board of Directors authorized the purchase of an additional 60 million shares and a total of 66 million shares remain available for purchase under the authorizations. The Company purchased 16.4 million shares in 2020, 19.9 million shares in 2019 and 15.1 million shares in 2018 under the authorizations.

LEVERAGE/CAPITALIZATION

	2018	2019	**2020**
Total Assets	$20,390	20,497	**22,882**
Long-term Debt	$ 3,137	4,277	**6,326**
Common Stockholders' Equity	$ 8,947	8,233	**8,405**
Total Debt-to-Total Capital Ratio	34.7%	41.0%	**47.1%**
Net Debt-to-Net Capital Ratio	29.1%	33.9%	**33.2%**
Operating Cash Flow-to-Debt Ratio	60.7%	52.5%	**41.2%**
Interest Coverage Ratio	14.2X	15.2X	**14.4X**

Total debt, which includes long-term debt, current maturities of long-term debt, commercial paper and other short-term borrowings, was $7,486, $5,721 and $4,760 as of September 30, 2020, 2019 and 2018, respectively. During the year, the Company repaid $500 of 4.875% notes that matured in October 2019. In April 2020, the Company issued $500 of 1.8% notes due October 2027, $500 of 1.95% notes due October 2030 and $500 of 2.75% notes due October 2050. In September 2020, the Company issued $750 of 0.875% notes due October 2026. The net proceeds from the sale of the notes were used to reduce commercial paper borrowings and for general corporate purposes. A portion of the proceeds from the notes issued in September were also used to fund the acquisition of OSI, which closed on October 1, 2020. In 2019, the Company repaid $400 of 5.25% notes that matured in October 2018 and $250 of 5.0% notes that matured in April 2019, while $250 of 5.375% notes that matured in October 2017 were paid in fiscal 2018. In January 2019, the Company issued €500 of 1.25% notes due October 2025 and €500 of 2.0% notes due October 2029. In May 2019, the Company issued €500 of 0.375% notes due May 2024.

The total debt-to-capital ratio increased in 2020 due to the long-term debt issuances described above. The net debt-to-net capital ratio (less cash and short-term investments) decreased slightly, reflecting the timing of the acquisition of OSI, which closed shortly after year-end. In 2019 the total debt-to-capital ratio and the net debt-to-net capital ratio increased due to increased borrowings. The operating cash flow-to-debt ratio decreased in 2020 due to the increased borrowings. The decrease in 2019 was due to the increased borrowings, partially offset by a modest increase in operating cash flows. The interest coverage ratio is computed as earnings before income taxes plus interest expense, divided by interest expense. The decrease in 2020 reflects lower earnings, partially offset by lower interest expense. The increase in 2019 was due to higher earnings as compared to 2018.

In May 2018, the Company entered into a $3.5 billion five-year revolving backup credit facility with various banks, which replaced the April 2014 $3.5 billion facility. The credit facility is maintained to support general corporate purposes, including commercial paper borrowings. The Company has not incurred any borrowings under this or previous facilities. The credit facility contains no financial covenants and is not subject to termination based on a change of credit rating or material adverse changes. The facility is unsecured and may be accessed under various interest rate and currency denomination alternatives at the Company's option. Fees to maintain the facility are immaterial. The Company also maintains a universal shelf registration statement on file with the SEC under which it can issue debt securities, preferred stock, common stock, warrants, share purchase contracts or share purchase units without a predetermined limit. Securities can be sold in one or more separate offerings with the size, price and terms to be determined at the time of sale.

Emerson's financial structure provides the flexibility necessary to achieve its strategic objectives. The Company has been successful in efficiently deploying cash where needed worldwide to fund operations, complete acquisitions and sustain long-term growth. At September 30, 2020, $1.7 billion of the Company's cash was held in the U.S., primarily to fund the OSI acquisition. The remaining $1.6 billion of cash was held outside the U.S. (primarily in Europe and Asia). The Company routinely repatriates a portion of its non-U.S. cash from earnings each year, or otherwise when it can be accomplished tax efficiently, and provides for withholding taxes and any applicable U.S. income taxes as appropriate. The Company has been able to readily meet all its funding requirements and currently believes that sufficient funds will be available to meet the Company's needs in the foreseeable future through operating cash flow, existing resources, short- and long-term debt capacity or backup credit lines.

CONTRACTUAL OBLIGATIONS

At September 30, 2020, the Company's contractual obligations, including estimated payments, are as follows:

	AMOUNTS DUE BY PERIOD				
	TOTAL	LESS THAN 1 YEAR	1 – 3 YEARS	3 – 5 YEARS	MORE THAN 5 YEARS
Long-term Debt (including Interest)	$8,462	464	1,324	1,327	5,347
Operating Leases	565	159	216	105	85
Purchase Obligations	889	726	121	36	6
Total	$9,916	1,349	1,661	1,468	5,438

Purchase obligations consist primarily of inventory purchases made in the normal course of business to meet operational requirements. The table above does not include the majority of other noncurrent liabilities (except for lease-related obligations), which total $2,324 and consist primarily of pension and postretirement plan liabilities, asbestos litigation, deferred income taxes and unrecognized tax benefits, because it is not certain when these amounts will become due. See Note 12 for estimated future benefit payments and Note 14 for additional information on deferred income taxes.

FINANCIAL INSTRUMENTS

The Company is exposed to market risk related to changes in interest rates, foreign currency exchange rates and commodity prices, and selectively uses derivative financial instruments, including forwards, swaps and purchased options to manage these risks. The Company does not hold derivatives for trading or speculative purposes. The value of derivatives and other financial instruments is subject to change as a result of market movements in rates and prices. Sensitivity analysis is one technique used to forecast the impact of these movements. Based on a hypothetical 10 percent increase in interest rates, a 10 percent decrease in commodity prices or a 10 percent weakening in the U.S. dollar across all currencies, the potential losses in future earnings, fair value or cash flows are not material. Sensitivity analysis has limitations; for example, a weaker U.S. dollar would benefit future earnings through favorable translation of non-U.S. operating results, and lower commodity prices would benefit future earnings through lower cost of sales. See Notes 1, and 9 through 11.

Critical Accounting Policies

Preparation of the Company's financial statements requires management to make judgments, assumptions and estimates regarding uncertainties that could affect reported revenue, expenses, assets, liabilities and equity. Note 1 describes the significant accounting policies used in preparation of the consolidated financial statements. The most significant areas where management judgments and estimates impact the primary financial statements are described below. Actual results in these areas could differ materially from management's estimates under different assumptions or conditions.

REVENUE RECOGNITION

The Company evaluates its contracts with customers to identify the promised goods or services and recognizes revenue for the identified performance obligations at the amount the Company expects to be entitled to in exchange for those goods or services. A performance obligation is a promise in a contract to transfer a distinct good or service to a customer. Revenue is recognized when, or as, performance obligations are satisfied and control has transferred to the customer, typically when products are shipped or delivered, title and risk of loss pass to the customer, and the Company has a present right to payment. The vast majority of the Company's revenues relate to a broad offering of manufactured products which are recognized at the point in time when control transfers, generally in accordance with shipping terms. A portion of the Company's revenues relate to the sale of software and post-contract customer support, parts and labor for repairs, and engineering services.

In limited circumstances, contracts include multiple performance obligations, where revenue is recognized separately for each good or service, as well as contracts where revenue is recognized over time as control transfers to the customer. Tangible products represent a large majority of the delivered items in contracts with multiple performance obligations or where revenue is recognized over time, while a smaller portion is attributable to installation, service and maintenance. In sales arrangements that involve multiple performance obligations, revenue is allocated based on the relative standalone selling price for each performance obligation. Observable selling prices from actual transactions are used whenever possible. In other instances, the Company determines the standalone selling price based on third-party pricing or management's best estimate. For revenues recognized over time, the Company typically uses an input method to determine progress and recognize revenue, based on costs incurred. The Company believes costs incurred closely correspond with its performance under the contract and the transfer of control to the customer.

LONG-LIVED ASSETS

Long-lived assets, which include property, plant and equipment, goodwill and identifiable intangible assets, are reviewed for impairment whenever events or changes in business circumstances indicate impairment may exist. If the Company determines that the carrying value of a long-lived asset may not be recoverable, a permanent impairment charge is recorded for the amount by which the carrying value of the long-lived asset exceeds its estimated fair value. Reporting units are also reviewed for possible goodwill impairment at least annually, in the fourth quarter. If an initial assessment indicates it is more likely than not an impairment may exist, it is evaluated by comparing the unit's estimated fair value to its carrying value. Fair value is generally estimated using an income approach that discounts estimated future cash flows using discount rates judged by management to be commensurate with the applicable risk. Estimates of future sales, operating results, cash flows and discount rates are subject to changes in the economic environment, including such factors as the general level of market interest rates, expected equity market returns and the volatility of markets served, particularly when recessionary economic circumstances continue for an extended period of time. Management believes the estimates of future cash flows and fair values are reasonable; however, changes in estimates due to variance from assumptions could materially affect the evaluations.

RETIREMENT PLANS

The Company maintains a prudent long-term investment strategy consistent with the duration of pension obligations. The determination of defined benefit plan expense and liabilities is dependent on various assumptions, including the expected annual rate of return on plan assets, the discount rate and the rate of annual compensation increases. Management believes the assumptions used are appropriate; however, actual experience may differ. In accordance with U.S. generally accepted accounting principles, actual results that differ from the Company's assumptions are accumulated as deferred actuarial gains or losses and amortized to expense in future periods. The Company's principal U.S. defined benefit plan is closed to employees hired after January 1, 2016 while shorter-tenured employees ceased accruing benefits effective October 1, 2016.

As of September 30, 2020, the U.S. pension plans were underfunded by $142 in total, including unfunded plans totaling $223. The non-U.S. plans were underfunded by $266, including unfunded plans totaling $319. The Company contributed a total of $66 to defined benefit plans in 2020 and expects to contribute approximately $50 in 2021. At year-end 2020, the discount rate for U.S. plans was 2.81 percent, and was 3.22 percent in 2019. The assumed investment return on plan assets was 6.75 percent in 2020, 7.00 percent in 2019 and 7.00 percent in 2018, and will be 6.50 percent for 2021. Deferred actuarial losses to be amortized to expense in future years were $1,253 ($950 after-tax) as of September 30, 2020. See Notes 12 and 13.

CONTINGENT LIABILITIES

The Company is a party to a number of pending legal proceedings and claims, including those involving general and product liability (including asbestos) and other matters, several of which claim substantial amounts of damages. The Company accrues for such liabilities when it is probable that future costs (including legal fees and expenses) will be incurred and such costs can be reasonably estimated. Accruals are based on developments to date; management's estimates of the outcomes of these matters; and the Company's experience in contesting, litigating and settling similar matters. The Company engages an outside expert to develop an actuarial estimate of its expected costs to resolve all pending and future asbestos claims, including defense costs, as well as its related insurance receivables. The reserve for asbestos litigation, which is recorded on an undiscounted basis, is based on projected claims through 2065.

Although it is not possible to predict the ultimate outcome of these matters, the Company historically has been largely successful in defending itself against claims and suits that have been brought against it, and will continue to defend itself vigorously in all such matters. While the Company believes a material adverse impact is unlikely, given the inherent uncertainty of litigation, a remote possibility exists that a future development could have a material adverse impact on the Company. See Note 13.

INCOME TAXES

Income tax expense and tax assets and liabilities reflect management's assessment of taxes paid or expected to be paid (received) on items included in the financial statements. Deferred tax assets and liabilities arise from temporary differences between the consolidated financial statement carrying amounts of existing assets and liabilities and their respective tax bases, and consideration of operating loss and tax credit carryforwards. Deferred income taxes are measured using enacted tax rates in effect for the year in which the temporary differences are expected to be recovered or settled. The impact on deferred tax assets and liabilities of a change in tax rates is recognized in the period that includes the enactment date. Valuation allowances are provided to reduce deferred tax assets to the amount that will more likely than not be realized. This requires management to make judgments and estimates regarding the amount and timing of the reversal of taxable temporary differences, expected future taxable income, and the impact of tax planning strategies.

Uncertainty exists regarding tax positions taken in previously filed tax returns which remain subject to examination, along with positions expected to be taken in future returns. The Company provides for unrecognized tax benefits, based on the technical merits, when it is more likely than not that an uncertain tax position will not be sustained upon examination. Adjustments are made to the uncertain tax positions when facts and circumstances change, such as the closing of a tax audit; changes in applicable tax laws, including tax case rulings and legislative guidance; or expiration of the applicable statute of limitations.

On December 22, 2017, the U.S. government enacted the Tax Cuts and Jobs Act, which made comprehensive changes to U.S. federal income tax laws by moving from a global to a modified territorial tax regime. As a result, cash repatriated to the U.S. is generally no longer subject to U.S. federal income taxes. No provision is made for withholding taxes and any applicable U.S. income taxes on the undistributed earnings of non-U.S. subsidiaries where these earnings are considered indefinitely invested or otherwise retained for continuing international operations. Determination of the amount of taxes that might be paid on these undistributed earnings if eventually remitted is not practicable. See Notes 1 and 14.

Other Items

LEGAL MATTERS

At September 30, 2020, there were no known contingent liabilities (including guarantees, pending litigation, taxes and other claims) that management believes will be material in relation to the Company's financial statements, nor were there any material commitments outside the normal course of business.

NEW ACCOUNTING PRONOUNCEMENTS

On October 1, 2019, the Company adopted ASC 842, *Leases*, which requires rights and obligations related to lease arrangements to be recognized on the balance sheet, using the optional transition method under which prior periods were not adjusted. The Company elected the package of practical expedients for leases that commenced prior to the adoption date, which included carrying forward the historical lease classification as operating or finance. The adoption of ASC 842 resulted in the recognition of operating lease right-of-use assets and related lease liabilities of approximately $500 as of October 1, 2019, but did not materially impact the Company's earnings or cash flows for the year ended September 30, 2020.

On October 1, 2019, the Company adopted updates to ASC 815, *Derivatives and Hedging,* which permit hedging certain contractually specified risk components. Additionally, the updates eliminate the requirement to separately measure and report hedge ineffectiveness and simplify hedge documentation and effectiveness assessment requirements. These updates were adopted using a modified retrospective approach and were immaterial to the Company's financial statements for the year ended September 30, 2020.

On October 1, 2018, the Company adopted ASC 606, *Revenue from Contracts with Customers*, which updated and consolidated revenue recognition guidance from multiple sources into a single, comprehensive standard to be applied for all contracts with customers. The fundamental principle of the revised standard is to recognize revenue based on the transfer of goods and services to customers at the amount the Company expects to be entitled to in exchange for those goods and services. The Company adopted the new standard using the modified retrospective approach and applied the guidance to open contracts which were not completed at the date of adoption. The cumulative effect of adoption resulted in a $30 increase to beginning retained earnings as of October 1, 2018. This increase primarily related to contracts where a portion of revenue for delivered goods or services was previously deferred due to contingent payment terms. The adoption of ASC 606 did not materially impact the Company's consolidated financial statements as of and for the year ended September 30, 2019.

In January 2017, the FASB issued updates to ASC 350, *Intangibles - Goodwill and Other,* eliminating the requirement to measure impairment based on the implied fair value of goodwill compared to the carrying amount of a reporting unit's goodwill. Instead, goodwill impairment will be measured as the excess of a reporting unit's carrying amount over its estimated fair value. These updates are effective prospectively beginning in fiscal 2021 and are not expected to impact the Company's financial statements unless a potential goodwill impairment is identified.

In August 2018, the FASB issued updates to ASC 350, *Intangibles - Goodwill and Other,* which align the requirements for capitalizing implementation costs incurred in a software hosting arrangement with the requirements for costs incurred to develop or obtain internal-use software. The Company plans to adopt these updates prospectively in the first quarter of fiscal 2021 and they are not expected to materially impact the Company's results of operations.

In June 2016, the FASB issued ASC 326, *Financial Instruments - Credit Losses*, which amends the impairment model by requiring entities to use a forward-looking approach, based on expected losses, to estimate credit losses on certain types of financial instruments, including trade receivables. The new standard is effective in the first quarter of fiscal 2021 and is expected to have an immaterial impact on the Company's financial statements.

In August 2018, the FASB issued updates to ASC 715, *Compensation - Retirement Benefits*, which modify the disclosure requirements for employers that sponsor defined benefit plans or other postretirement plans. These updates are effective in fiscal 2021 and must be adopted on a retrospective basis. The updates change disclosures only and will not impact the Company's results of operations.

Fiscal 2021 Outlook

Despite the uncertainties and challenges from COVID-19, Emerson ended the year with strong profitability, earnings and cash flow, driven by its ongoing cost containment and restructuring actions. As the broader macroeconomic outlook begins to stabilize, the Company is well-positioned with a more agile and lean cost structure to sustain and build upon its strong profitability, particularly as late cycle end markets begin their recovery. Although much of the attention this year was focused on reacting to the pandemic, Emerson also continued to invest and build on its innovation and technology footprint, including the strategic acquisition of Open Systems International, Inc. (OSI).

Emerson's outlook for fiscal 2021 assumes a conservative forecast for the macroeconomic environment given the current uncertainty, with slow-but-steady improvement in demand over the course of the year as economies, companies and communities continue to gradually reopen and learn to safely operate with the virus. Overall, revenue is expected to return to growth in the third quarter of 2021, with Commercial & Residential Solutions returning to growth in the first quarter and Automation Solutions returning to growth later in the year.

For the full year, consolidated net sales are expected to be up 1 to 4 percent, with underlying sales down 1 to up 2 percent excluding a 1 percent favorable impact from foreign currency translation and a 1 percent favorable impact from the OSI acquisition. Automation Solutions net sales are expected to be down 1 to up 2 percent, with underlying sales down 1 to 4 percent excluding a 1 percent favorable impact from foreign currency translation and a 2 percent favorable impact from the OSI acquisition. Commercial & Residential Solutions net sales are expected to be up 5 to 8 percent, with underlying sales up 4 to 7 percent excluding a 1 percent impact from favorable foreign currency translation. Earnings per share are expected to be $3.06 to $3.16, while adjusted earnings per share, which exclude a $0.28 per share impact from restructuring actions and a $0.06 per share impact from OSI first year acquisition accounting charges, are expected to be $3.40 to $3.50. Operating cash flow is expected to be approximately $3.1 billion and free cash flow, which excludes targeted capital spending of $600 million, is expected to be approximately $2.5 billion. The Company intends to resume share repurchases in fiscal 2021 in the amount of $500 million to $1 billion, while concurrently maintaining optionality for further acquisitions should the opportunity arise. The guidance discussed herein assumes no major operational or supply chain disruptions and oil prices in the $35 to $50 range during this period. However, future developments related to COVID-19, including further actions taken by governmental authorities, potential shutdowns of our operations, or delays in the stabilization and recovery of economic conditions could further adversely affect our operations and financial results, as well as those of our customers and suppliers. See Item 1A – "Risk Factors" in our Annual Report on Form 10-K.

BREXIT UPDATE

The United Kingdom's (UK) withdrawal from the European Union (EU), commonly known as "Brexit", was completed on January 31, 2020. The UK is now in a transition period and has begun negotiating the terms of a trade agreement and other laws and regulations with the EU. The Company's net sales in the UK are principally in the Automation Solutions segment and represent less than two percent of consolidated sales. Sales of products manufactured in the UK and sold within the EU are immaterial. The Company is evaluating several potential outcomes of the UK's negotiations with the EU and believes the direct cost of incremental tariffs, logistics and other items would be immaterial.

Consolidated Statements of Earnings

EMERSON ELECTRIC CO. & SUBSIDIARIES

Years ended September 30 | Dollars in millions, except per share amounts

	2018	2019	2020
Net sales	$17,408	18,372	**16,785**
Costs and expenses:			
Cost of sales	9,976	10,557	**9,776**
Selling, general and administrative expenses	4,269	4,457	**3,986**
Other deductions, net	337	325	**532**
Interest expense, net of interest income of: 2018, $43; 2019, $27; 2020, $19	159	174	**156**
Earnings before income taxes	2,667	2,859	**2,335**
Income taxes	443	531	**345**
Net earnings	2,224	2,328	**1,990**
Less: Noncontrolling interests in earnings of subsidiaries	21	22	**25**
Net earnings common stockholders	$ 2,203	2,306	**1,965**
Basic earnings per common share	$ 3.48	3.74	**3.26**
Diluted earnings per common share	$ 3.46	3.71	**3.24**

See accompanying Notes to Consolidated Financial Statements.

Consolidated Statements of Comprehensive Income

EMERSON ELECTRIC CO. & SUBSIDIARIES

Years ended September 30 | Dollars in millions

	2018	2019	2020
Net earnings	$2,224	2,328	**1,990**
Other comprehensive income (loss), net of tax:			
Foreign currency translation	(231)	(194)	**85**
Pension and postretirement	242	(508)	**64**
Cash flow hedges	(7)	(5)	**(2)**
Total other comprehensive income (loss)	4	(707)	**147**
Comprehensive income	2,228	1,621	**2,137**
Less: Noncontrolling interests in comprehensive income of subsidiaries	21	22	**27**
Comprehensive income common stockholders	$2,207	1,599	**2,110**

See accompanying Notes to Consolidated Financial Statements.

Consolidated Balance Sheets

EMERSON ELECTRIC CO. & SUBSIDIARIES

September 30 | Dollars and shares in millions, except per share amounts

	2019	2020
ASSETS		
Current assets		
Cash and equivalents	$ 1,494	**3,315**
Receivables, less allowances of $112 in 2019 and $138 in 2020	2,985	**2,802**
Inventories	1,880	**1,928**
Other current assets	780	**761**
Total current assets	7,139	**8,806**
Property, plant and equipment, net	3,642	**3,688**
Other assets		
Goodwill	6,536	**6,734**
Other intangible assets	2,615	**2,468**
Other	565	**1,186**
Total other assets	9,716	**10,388**
Total assets	$20,497	**22,882**
LIABILITIES AND EQUITY		
Current liabilities		
Short-term borrowings and current maturities of long-term debt	$ 1,444	**1,160**
Accounts payable	1,874	**1,715**
Accrued expenses	2,658	**2,910**
Total current liabilities	5,976	**5,785**
Long-term debt	4,277	**6,326**
Other liabilities	1,971	**2,324**
Equity		
Common stock, $0.50 par value; authorized, 1,200.0 shares; issued, 953.4 shares; outstanding, 611.0 shares in 2019; 598.0 shares in 2020	477	**477**
Additional paid-in-capital	393	**470**
Retained earnings	24,199	**24,955**
Accumulated other comprehensive income (loss)	(1,722)	**(1,577)**
	23,347	**24,325**
Less: Cost of common stock in treasury, 342.4 shares in 2019; 355.4 shares in 2020	15,114	**15,920**
Common stockholders' equity	8,233	**8,405**
Noncontrolling interests in subsidiaries	40	**42**
Total equity	8,273	**8,447**
Total liabilities and equity	$20,497	**22,882**

See accompanying Notes to Consolidated Financial Statements.

Consolidated Statements of Equity

EMERSON ELECTRIC CO. & SUBSIDIARIES

Years ended September 30 | Dollars in millions, except per share amounts

	2018	2019	2020
Common stock	$ 477	477	**477**
Additional paid-in-capital			
Beginning balance	297	348	**393**
Stock plans	51	45	**77**
Ending balance	348	393	**470**
Retained earnings			
Beginning balance	21,995	23,072	**24,199**
Net earnings common stockholders	2,203	2,306	**1,965**
Dividends paid (per share: 2018, $1.94; 2019, $1.96; 2020, $2.00)	(1,229)	(1,209)	**(1,209)**
Adoption of accounting standard updates	103	30	**—**
Ending balance	23,072	24,199	**24,955**
Accumulated other comprehensive income (loss)			
Beginning balance	(1,019)	(1,015)	**(1,722)**
Foreign currency translation	(231)	(194)	**83**
Pension and postretirement	242	(508)	**64**
Cash flow hedges	(7)	(5)	**(2)**
Ending balance	(1,015)	(1,722)	**(1,577)**
Treasury stock			
Beginning balance	(13,032)	(13,935)	**(15,114)**
Purchases	(1,000)	(1,250)	**(942)**
Issued under stock plans	97	71	**136**
Ending balance	(13,935)	(15,114)	**(15,920)**
Common stockholders' equity	8,947	8,233	**8,405**
Noncontrolling interests in subsidiaries			
Beginning balance	52	43	**40**
Net earnings	21	22	**25**
Other comprehensive income	—	—	**2**
Dividends paid	(30)	(25)	**(25)**
Ending balance	43	40	**42**
Total equity	$ 8,990	8,273	**8,447**

See accompanying Notes to Consolidated Financial Statements.

Consolidated Statements of Cash Flows

EMERSON ELECTRIC CO. & SUBSIDIARIES

Years ended September 30 | Dollars in millions

	2018	2019	2020
Operating activities			
Net earnings	$ 2,224	2,328	**1,990**
Adjustments to reconcile net earnings to net cash provided by operating activities:			
Depreciation and amortization	758	822	**854**
Stock compensation expense	216	120	**110**
Pension expense	49	2	**67**
Pension funding	(61)	(60)	**(66)**
Transition impact of Tax Act	(189)	—	**—**
Changes in operating working capital	(83)	(150)	**148**
Other, net	(22)	(56)	**(20)**
Cash provided by operating activities	2,892	3,006	**3,083**
Investing activities			
Capital expenditures	(617)	(594)	**(538)**
Purchases of businesses, net of cash and equivalents acquired	(2,203)	(469)	**(126)**
Divestitures of businesses	201	14	**—**
Other, net	(101)	(125)	**(76)**
Cash used in investing activities	(2,720)	(1,174)	**(740)**
Financing activities			
Net increase (decrease) in short-term borrowings	343	(6)	**(90)**
Proceeds from short-term borrowings greater than three months	—	—	**1,043**
Payments of short-term borrowings greater than three months	—	—	**(1,043)**
Proceeds from long-term debt	—	1,691	**2,233**
Payments of long-term debt	(241)	(656)	**(503)**
Dividends paid	(1,229)	(1,209)	**(1,209)**
Purchases of common stock	(1,000)	(1,250)	**(942)**
Other, net	35	39	**2**
Cash used in financing activities	(2,092)	(1,391)	**(509)**
Effect of exchange rate changes on cash and equivalents	(49)	(40)	**(13)**
Increase (Decrease) in cash and equivalents	(1,969)	401	**1,821**
Beginning cash and equivalents	3,062	1,093	**1,494**
Ending cash and equivalents	$ 1,093	1,494	**3,315**
Changes in operating working capital			
Receivables	$ (175)	51	**207**
Inventories	17	(87)	**(6)**
Other current assets	(42)	(87)	**33**
Accounts payable	115	(37)	**(196)**
Accrued expenses	2	10	**110**
Total changes in operating working capital	$ (83)	(150)	**148**

See accompanying Notes to Consolidated Financial Statements.

Notes to Consolidated Financial Statements

EMERSON ELECTRIC CO. & SUBSIDIARIES

Years ended September 30 | Dollars in millions, except per share amounts or where noted

(1) Summary of Significant Accounting Policies

FINANCIAL STATEMENT PRESENTATION

The preparation of the financial statements in conformity with U.S. generally accepted accounting principles (U.S. GAAP) requires management to make estimates and assumptions that affect reported amounts and related disclosures. Actual results could differ from these estimates. Certain prior year amounts have been reclassified to conform with current year presentation.

On October 1, 2019, the Company adopted ASC 842, *Leases*, which requires rights and obligations related to lease arrangements to be recognized on the balance sheet, using the optional transition method under which prior periods were not adjusted. The Company elected the package of practical expedients for leases that commenced prior to the adoption date, which included carrying forward the historical lease classification as operating or finance. The adoption of ASC 842 resulted in the recognition of operating lease right-of-use assets and related lease liabilities of approximately $500 as of October 1, 2019, but did not materially impact the Company's earnings or cash flows for the year ended September 30, 2020. The Company's financial statements for 2018 and 2019 continue to be reported in accordance with the Company's historical accounting under ASC 840, *Leases*.

On October 1, 2019, the Company adopted updates to ASC 815, *Derivatives and Hedging*, which permit hedging certain contractually specified risk components. Additionally, the updates eliminate the requirement to separately measure and report hedge ineffectiveness and simplify hedge documentation and effectiveness assessment requirements. These updates were adopted using a modified retrospective approach and were immaterial to the Company's financial statements for the year ended September 30, 2020.

On October 1, 2018, the Company adopted ASC 606, *Revenue from Contracts with Customers*, which updated and consolidated revenue recognition guidance from multiple sources into a single, comprehensive standard to be applied for all contracts with customers. The fundamental principle of the revised standard is to recognize revenue based on the transfer of goods and services to customers at the amount the Company expects to be entitled to in exchange for those goods and services. The Company adopted the new standard using the modified retrospective approach and applied the guidance to open contracts which were not completed at the date of adoption. The cumulative effect of adoption resulted in a $30 increase to beginning retained earnings as of October 1, 2018. This increase primarily related to contracts where a portion of revenue for delivered goods or services was previously deferred due to contingent payment terms. The adoption of ASC 606 did not materially impact the Company's consolidated financial statements as of and for the year ended September 30, 2019. Amounts reported for the year ended September 30, 2018 continue to be reported in accordance with the Company's historical accounting under ASC 605, *Revenue Recognition*.

In the first quarter of fiscal 2019, the Company adopted updates to ASC 715, *Compensation - Retirement Benefits*, which permit only the service cost component of net periodic pension and postretirement expense to be reported with compensation costs, while all other components are required to be reported separately in other deductions. These updates were adopted retrospectively and resulted in the reclassification of $40 of income in 2018 from cost of sales and SG&A to other deductions, net. Segment earnings were not impacted by the updates to ASC 715.

In the fourth quarter of 2018, the Company adopted updates to ASC 220, *Comprehensive Income*, which permit reclassification of stranded tax effects resulting from U.S. tax reform from accumulated other comprehensive income to retained earnings. The Company reclassified $100 of stranded tax effects from accumulated other comprehensive income to retained earnings upon adoption of these updates. See Note 17.

In the first quarter of 2018, the Company adopted updates to ASC 740, *Income Taxes,* which require recognition of the income tax effects of intra-entity transfers of assets other than inventory when the transfer occurs, on a modified retrospective basis. The adoption of these updates resulted in an increase of $3 to retained earnings.

In the first quarter of 2018, the Company adopted updates to ASC 330, *Inventory*, which changed the measurement principle for inventory from the lower of cost or market to the lower of cost and net realizable value. These updates were adopted prospectively and did not materially impact the Company's financial statements.

PRINCIPLES OF CONSOLIDATION

The consolidated financial statements include the accounts of the Company and its controlled affiliates. Intercompany transactions, profits and balances are eliminated in consolidation. Investments of 20 percent to 50 percent of the voting shares of other entities are accounted for by the equity method. Investments in publicly traded companies of less than 20 percent are carried at fair value, with changes in fair value reflected in accumulated other comprehensive income. Investments in nonpublicly traded companies of less than 20 percent are carried at cost, minus impairment, and adjusted for observable price changes in orderly transactions.

FOREIGN CURRENCY TRANSLATION

The functional currency for most of the Company's non-U.S. subsidiaries is the local currency. Adjustments resulting from translating local currency financial statements into U.S. dollars are reflected in accumulated other comprehensive income.

CASH EQUIVALENTS

Cash equivalents consist of highly liquid investments with original maturities of three months or less.

INVENTORIES

Inventories are stated at the lower of cost and net realizable value. The majority of inventory is valued based on standard costs, which approximate average costs, while the remainder is principally valued on a first-in, first-out basis. Cost standards are revised at the beginning of each year. The annual effect of resetting standards plus any operating variances incurred during each period are allocated to inventories and recognized in cost of sales as product is sold. Following are the components of inventory as of September 30:

	2019	2020
Finished products	$ 578	**584**
Raw materials and work in process	1,302	**1,344**
Total inventories	$1,880	**1,928**

FAIR VALUE MEASUREMENT

ASC 820, *Fair Value Measurement*, establishes a formal hierarchy and framework for measuring certain financial statement items at fair value, and requires disclosures about fair value measurements and the reliability of valuation inputs. Under ASC 820, measurement assumes the transaction to sell an asset or transfer a liability occurs in the principal or at least the most advantageous market for that asset or liability. Within the hierarchy, Level 1 instruments use observable market prices for an identical item in active markets and have the most reliable valuations. Level 2 instruments are valued through broker/dealer quotation or other approaches using market-observable inputs for similar items in active markets, including forward and spot prices, interest rates and volatilities. Level 3 instruments are valued using inputs not observable in an active market, such as company-developed future cash flow estimates, and are considered the least reliable. Valuations for all of the Company's financial instruments fall within Level 2. The fair value of the Company's long-term debt is Level 2, estimated using current interest rates and pricing from financial institutions and other market sources for debt with similar maturities and characteristics.

PROPERTY, PLANT AND EQUIPMENT

The Company records investments in land, buildings, and machinery and equipment at cost. Depreciation is computed principally using the straight-line method over estimated service lives, which for principal assets are 30 to 40 years for buildings and 8 to 12 years for machinery and equipment. Long-lived tangible assets are reviewed for impairment whenever events or changes in business circumstances indicate the carrying value of the assets may not be recoverable. Impairment losses are recognized based on estimated fair values if the sum of estimated future undiscounted cash flows of the related assets is less than the carrying values. The components of property, plant and equipment as of September 30 follow:

	2019	2020
Land	$ 336	**350**
Buildings	2,219	**2,335**
Machinery and equipment	5,645	**5,907**
Construction in progress	471	**463**
Property, plant and equipment, at cost	8,671	**9,055**
Less: Accumulated depreciation	5,029	**5,367**
Property, plant and equipment, net	$3,642	**3,688**

GOODWILL AND OTHER INTANGIBLE ASSETS

Assets and liabilities acquired in business combinations are accounted for using the acquisition method and recorded at their respective fair values. Substantially all goodwill is assigned to the reporting unit that acquires a business. A reporting unit is an operating segment as defined in ASC 280, *Segment Reporting*, or a business one level below an operating segment if discrete financial information for that business unit is prepared and regularly reviewed by the segment manager. The Company conducts annual impairment tests of goodwill in the fourth quarter. If an initial assessment indicates it is more likely than not goodwill might be impaired, it is evaluated by comparing the reporting unit's estimated fair value to its carrying value. Goodwill is also tested for impairment between annual tests if events or circumstances indicate the fair value of a unit may be less than its carrying value. If the carrying amount exceeds the estimated fair value, impairment is recognized to the extent that recorded goodwill exceeds the implied fair value of that goodwill. Estimated fair values of reporting units are Level 3 measures and are developed generally under an income approach that discounts estimated future cash flows using risk-adjusted interest rates, as well as earnings multiples or other techniques as warranted. Fair values are subject to changes in underlying economic conditions.

All of the Company's identifiable intangible assets are subject to amortization on a straight-line basis over their estimated useful lives. Identifiable intangibles consist of intellectual property such as patents and trademarks, customer relationships and capitalized software. Identifiable intangibles are also subject to evaluation for potential impairment if events or circumstances indicate the carrying amount may not be recoverable. See Note 8.

LEASES

The Company leases offices; manufacturing facilities and equipment; and transportation, information technology and office equipment under operating lease arrangements. Finance lease arrangements are immaterial. The Company determines whether an arrangement is, or contains, a lease at contract inception. An arrangement contains a lease if the Company has the right to direct the use of and obtain substantially all of the economic benefits of an identified asset. Right-of-use assets and lease liabilities are recognized at lease commencement based on the present value of lease payments over the lease term. Leases with an initial term of 12 months or less are not recognized on the balance sheet and are recorded as short-term lease expense. The discount rate used to calculate present value is the Company's incremental borrowing rate based on the lease term and the economic environment of the applicable country or region.

Certain leases contain renewal options or options to terminate prior to lease expiration, which are included in the measurement of right-of-use assets and lease liabilities when it is reasonably certain they will be exercised. The Company has elected to account for lease and non-lease components as a single lease component for its offices and manufacturing facilities. Some lease arrangements include payments that are adjusted periodically based on actual charges incurred for common area maintenance, utilities, taxes and insurance, or changes in an index or rate referenced in the lease. The fixed portion of these payments is included in the measurement of right-of-use assets and lease liabilities at lease commencement, while the variable portion is recorded as variable lease expense. The Company's leases typically do not contain material residual value guarantees or restrictive covenants.

PRODUCT WARRANTY

Warranties vary by product line and are competitive for the markets in which the Company operates. Warranties are largely offered to provide assurance that the product will function as intended and generally extend for a period of one to two years from the date of sale or installation. Provisions for warranty expense are estimated at the time of sale based on historical experience and adjusted quarterly for any known issues that may arise. Product warranty expense is less than one percent of sales.

REVENUE RECOGNITION

Emerson is a global manufacturer that designs and manufactures products and delivers services that bring technology and engineering together to provide innovative solutions for its customers, largely in the form of tangible products. The Company evaluates its contracts with customers to identify the promised goods or services and recognizes revenue for the identified performance obligations at the amount the Company expects to be entitled to in exchange for those goods or services. A performance obligation is a promise in a contract to transfer a distinct good or service to a customer. Revenue is recognized when, or as, performance obligations are satisfied and control has transferred to the customer, typically when products are shipped or delivered, title and risk of loss pass to the customer, and the Company has a present right to payment. The vast majority of the Company's revenues relate to a broad offering of manufactured products which are recognized at the point in time when control transfers, generally in accordance with shipping terms. A portion of the Company's revenues relate to the sale of software and post-contract customer support, parts and labor for repairs, and engineering services. In limited circumstances, contracts include multiple performance obligations, where revenue is recognized separately for each good or service, as well as contracts where revenue is recognized over time as control transfers to the customer.

Revenue is recognized over time for approximately 5 percent of the Company's revenues. These contracts largely relate to projects in the Process Control Systems & Solutions product offering within the Automation Solutions segment where revenue is recognized using the percentage-of-completion method to reflect the transfer of control over time, while a small amount is attributable to long-term maintenance and service contracts where revenue is typically recognized on a straight-line basis as the services are provided. Approximately 5 percent of revenues relate to sales arrangements with multiple performance obligations, principally in the Automation Solutions segment. Tangible products represent a large majority of the delivered items in contracts with multiple performance obligations or where revenue is recognized over time, while a smaller portion is attributable to installation, service and maintenance.

For revenues recognized over time, the Company typically uses an input method to determine progress and recognize revenue, based on costs incurred. The Company believes costs incurred closely correspond with its performance under the contract and the transfer of control to the customer.

In sales arrangements that involve multiple performance obligations, revenue is allocated based on the relative standalone selling price for each performance obligation. Observable selling prices from actual transactions are used whenever possible. In other instances, the Company determines the standalone selling price based on third-party pricing or management's best estimate. Generally, contract duration is short-term, and cancellation, termination or refund provisions apply only in the event of contract breach and are rarely invoked.

Payment terms vary but are generally short-term in nature. The Company's long-term contracts, where revenue is generally recognized over time, are typically billed as work progresses in accordance with the contract terms and conditions, either at periodic intervals or upon achievement of certain milestones. The timing of revenue recognition and billings under these contracts results in either unbilled receivables (contract assets) when revenue recognized exceeds billings, or customer advances (contract liabilities) when billings exceed revenue recognized. Unbilled receivables are reclassified to accounts receivable when an unconditional right to consideration exists, typically when a milestone in the contract is achieved. The Company does not evaluate whether the transaction price includes a significant financing component for contracts where the time between cash collection and performance is less than one year.

Certain arrangements with customers include variable consideration, typically in the form of rebates, cash discounts or penalties. In limited circumstances, the Company sells products with a general right of return. In most instances, returns are limited to product quality issues. The Company records a reduction to revenue at the time of sale to reflect the ultimate amount of consideration it expects to receive. The Company's estimates are updated quarterly based on historical experience, trend analysis, and expected market conditions. Variable consideration is typically not constrained at the time revenue is recognized. See Notes 2 and 18 for additional information about the Company's revenues.

DERIVATIVES AND HEDGING

In the normal course of business, the Company is exposed to changes in interest rates, foreign currency exchange rates and commodity prices due to its worldwide presence and diverse business profile. The Company's foreign currency exposures relate to transactions denominated in currencies that differ from the functional currencies of its business units, primarily in euros and Mexican pesos. Primary commodity exposures are price fluctuations on forecasted purchases of copper and aluminum and related products. As part of the Company's risk management strategy, derivative instruments are selectively used in an effort to minimize the impact of these exposures. Foreign exchange forwards and options are utilized to hedge foreign currency exposures impacting sales or cost of sales transactions, firm commitments and the fair value of assets and liabilities, while swap and option contracts may be used to minimize the effect of commodity price fluctuations on the cost of sales. Non-U.S. dollar obligations are utilized to reduce foreign currency risk associated with the Company's net investments in foreign operations. All derivatives are associated with specific underlying exposures and the Company does not hold derivatives for trading or speculative purposes. The duration of hedge positions is generally two years or less, except for the Company's net investment hedges.

All derivatives are accounted for under ASC 815, *Derivatives and Hedging,* and recognized at fair value. For derivatives hedging variability in future cash flows, any gain or loss is deferred in stockholders' equity and recognized when the underlying hedged transaction impacts earnings. The majority of the Company's derivatives that are designated as hedges and qualify for hedge accounting are cash flow hedges. For derivatives hedging the fair value of existing assets or liabilities, both the gain or loss on the derivative and the offsetting loss or gain on the hedged item are recognized in earnings each period. Currency fluctuations on non-U.S. dollar obligations that have been designated as hedges of net investments in foreign operations are recognized in accumulated other comprehensive income (loss) and reclassified to income in the same period when a foreign operation is sold or substantially liquidated and the gain or loss related to the sale is included in income. To the extent that any hedge is not fully effective at offsetting changes in the underlying hedged item, there could be a net earnings impact. The Company also uses derivatives to hedge economic exposures that do not receive hedge accounting under ASC 815. The underlying exposures for these hedges relate primarily to purchases of commodity-based components used in the Company's manufacturing processes, and the revaluation of certain foreign-currency-denominated assets and liabilities. Gains or losses on derivative instruments not designated as hedges are recognized in the income statement immediately.

Counterparties to derivative arrangements are companies with high credit ratings, and the Company has bilateral collateral arrangements with them for which credit rating-based posting thresholds vary depending on the arrangement. If credit ratings on the Company's debt fall below preestablished levels, counterparties can require immediate full collateralization on all instruments in net liability positions. No collateral was posted with counterparties and none was held by the Company at year end. If contractual thresholds had been exceeded, the maximum collateral the Company could have been required to post was immaterial. The Company can also demand full collateralization of instruments in net asset positions should any of the Company's counterparties' credit ratings fall below certain thresholds. Risk from credit loss when derivatives are in asset positions is not considered material. The Company has master netting arrangements in place with its counterparties that allow the offsetting of certain derivative-related amounts receivable and payable when settlement occurs in the same period. Accordingly, counterparty balances are netted in the consolidated balance sheet and are reported in other current assets or accrued expenses as appropriate, depending on positions with counterparties as of the balance sheet date. See Note 9.

INCOME TAXES

The provision for income taxes is based on pretax income reported in the consolidated statements of earnings and tax rates currently enacted in each jurisdiction. Certain income and expense items are recognized in different time periods for financial reporting and income tax filing purposes, and deferred income taxes are provided for the effect of temporary differences. The Company also provides for withholding taxes and any applicable U.S. income taxes on earnings intended to be repatriated from non-U.S. locations. No provision has been made for these taxes on approximately $4.6 billion of undistributed earnings of non-U.S. subsidiaries as of September 30, 2020, as these earnings are considered indefinitely invested or otherwise retained for continuing international operations. Recognition of withholding taxes and any applicable U.S. income taxes on undistributed non-U.S. earnings would be triggered by a management decision to repatriate those earnings. Determination of the amount of taxes that might be paid on these undistributed earnings if eventually remitted is not practicable. See Note 14.

(2) Revenue Recognition

The following table summarizes the balances of the Company's unbilled receivables (contract assets), which are reported in Other current assets, and its customer advances (contract liabilities), which are reported in Accrued expenses.

	2019	2020
Unbilled receivables (contract assets)	$ 456	**458**
Customer advances (contract liabilities)	(519)	**(583)**
Net contract liabilities	$ (63)	**(125)**

The majority of the Company's contract balances relate to arrangements where revenue is recognized over time and payments from customers are made according to a contractual billing schedule. The increase in net contract liabilities was due to customer billings which exceeded revenue recognized for performance completed during the period. Revenue recognized for 2020 included approximately $420 that was included in the beginning contract liability balance. Other factors that impacted the change in net contract liabilities were immaterial.

Revenue recognized for 2020 for performance obligations that were fully satisfied in previous periods, including cumulative catchup adjustments on the Company's long-term contracts, was not material. Capitalized amounts related to incremental costs to obtain customer contracts and costs to fulfill contracts are immaterial.

As of September 30, 2020, the Company's backlog relating to unsatisfied (or partially unsatisfied) performance obligations in contracts with its customers was approximately $5.3 billion. The Company expects to recognize approximately 85 percent of its remaining performance obligations as revenue over the next 12 months, with the remainder substantially over the subsequent two years thereafter.

See Note 18 for additional information about the Company's revenues.

(3) Weighted-Average Common Shares

Basic earnings per common share consider only the weighted-average of common shares outstanding while diluted earnings per common share also consider the dilutive effects of stock options and incentive shares. An inconsequential number of shares of common stock were excluded from the computation of dilutive earnings per share in 2020, 2019 and 2018 as the effect would have been antidilutive. Earnings allocated to participating securities were inconsequential for all years presented.

Reconciliations of weighted-average shares for basic and diluted earnings per common share follow (shares in millions):

	2018	2019	**2020**
Basic shares outstanding	632.0	616.2	**602.9**
Dilutive shares	3.3	4.4	**3.7**
Diluted shares outstanding	635.3	620.6	**606.6**

(4) Acquisitions and Divestitures

On October 1, 2020, the Company completed the acquisition of Open Systems International, Inc., a leading operations technology software provider in the global power industry, for approximately $1.6 billion, net of cash acquired. This business, which has annual sales of approximately $170 will be reported in the Automation Solutions segment. Based upon preliminary estimates, the Company expects to recognize goodwill of approximately $1,000 (none of which is expected to be tax deductible), identifiable intangible assets of approximately $800, primarily intellectual property and customer relationships with a weighted-average useful life of approximately 11 years, and deferred tax liabilities of approximately $180.

In 2020, the Company acquired three businesses, two in the Automation Solutions segment and one in the Climate Technologies segment, for $126, net of cash acquired. Valuations of certain acquired assets and liabilities are in-process and subject to refinement.

The Company acquired eight businesses in 2019, all in the Automation Solutions segment, for $469, net of cash acquired. These eight businesses had combined annual sales of approximately $300. The Company recognized goodwill of $209 ($155 of which is expected to be tax deductible) and other identifiable intangible assets of $158, primarily customer relationships and intellectual property with a weighted-average useful life of approximately nine years.

On July 17, 2018, the Company completed the acquisition of Aventics, a global provider of smart pneumatics technologies that power machine and factory automation applications, for $622, net of cash acquired. This business, which has annual sales of approximately $425, is reported in the Industrial Solutions product offering in the Automation Solutions segment. The Company recognized goodwill of $372 ($20 of which is expected to be tax deductible), and identifiable intangible assets of $278, primarily intellectual property and customer relationships with a weighted-average useful life of approximately 12 years.

On July 2, 2018, the Company completed the acquisition of Textron's tools and test equipment business for $810, net of cash acquired. This business, with annual sales of approximately $470, is a manufacturer of electrical and utility tools, diagnostics, and test and measurement instruments, and is reported in the Tools & Home products segment. The Company recognized goodwill of $366 ($11 of which is expected to be tax deductible), and identifiable intangible assets of $358, primarily intellectual property and customer relationships with a weighted-average useful life of approximately 14 years.

On December 1, 2017, the Company acquired Paradigm, a provider of software solutions for the oil and gas industry, for $505, net of cash acquired. This business had annual sales of approximately $140 and is included in the Measurement & Analytical Instrumentation product offering within Automation Solutions. The Company recognized goodwill of $309 ($170 of which is expected to be tax deductible), and identifiable intangible assets of $238, primarily intellectual property and customer relationships with a weighted-average useful life of approximately 11 years.

During 2018, the Company also acquired four smaller businesses, two in the Automation Solutions segment and two in the Climate Technologies segment.

Total cash paid for all businesses for the fiscal year ended 2018 was $2.2 billion, net of cash acquired. The purchase price of the 2018 acquisitions was allocated to assets and liabilities as follows.

Accounts receivable	$ 153
Inventory	187
Property, plant and equipment	140
Goodwill	1,176
Intangibles	1,013
Other assets	77
Total assets	2,746
Accounts payable	73
Other current liabilities	134
Deferred taxes and other liabilities	325
Cash paid, net of cash acquired	$2,214

Results of operations for the 2018 acquisitions included sales of $365 and a net loss of $3, including intangibles amortization of $40 and restructuring expense of $3. These results also included first year pretax acquisition accounting charges related to inventory and deferred revenue of $39 and $11, respectively, which are reported in Corporate and other. See Note 18.

The results of operations of the acquired businesses discussed above have been included in the Company's consolidated results of operations since the respective dates of acquisition.

On October 2, 2017, the Company sold its residential storage business for $200 in cash, and recognized a small pretax gain and an after-tax loss of $24 ($0.04 per share) in 2018 due to income taxes resulting from nondeductible goodwill. The Company realized $150 in after-tax cash proceeds from the sale.

In 2017, the Company sold its network power systems business and retained a subordinated interest in distributions which is contingent upon the equity holders first receiving a threshold return on their initial investment. The Company has not received any distributions through the year ended September 30, 2020.

PRO FORMA FINANCIAL INFORMATION (UNAUDITED)

Pro forma net sales, net earnings common stockholders and diluted earnings per share for 2018 were approximately $18.2 billion, $2.3 billion and $3.56 per share, respectively. These results are presented as if the 2018 acquisitions occurred on October 1, 2016 and the 2017 acquisition of the valves & controls business occurred on October 1, 2015. The pro forma information is presented for informational purposes only and is not indicative of the results of operations that would have been achieved had the acquisitions occurred as of that time.

The 2018 pro forma results exclude acquisition costs and first year acquisition accounting charges related to inventory, backlog and deferred revenue of $102. Of these charges, $73 related to businesses acquired in 2018 and $29 related to the valves & controls acquisition.

(5) Other Deductions, Net

Other deductions, net are summarized as follows:

	2018	2019	**2020**
Amortization of intangibles (intellectual property and customer relationships)	$211	238	**239**
Restructuring costs	65	95	**284**
Special advisory fees	—	—	**13**
Other	61	(8)	**(4)**
Total	$337	325	**532**

The increase in amortization for 2019 is due to higher intangibles amortization of $46 which largely relates to acquisitions completed in 2018, partially offset by backlog amortization of $19 incurred in 2018 related to the valves & controls acquisition. Other is composed of several items, including acquisition/divestiture costs, foreign currency transaction gains and losses, litigation, pension expense and other items. The change in 2020 was primarily due to an unfavorable impact from pensions of $48 offset by lower acquisition/divestiture and litigation costs. The decrease in 2019 is primarily due to lower acquisition/divestiture costs of $29, pension expenses of $42 and foreign currency transactions of $13.

(6) Restructuring Costs

Each year the Company incurs costs to size its businesses to levels appropriate for current economic conditions and to continually improve its cost structure and operational efficiency, deploy assets globally, and remain competitive on a worldwide basis. Costs result from numerous individual actions implemented across the Company's various operating units on an ongoing basis and can include costs for moving facilities to best-cost locations, restarting plants after relocation or geographic expansion to better serve local markets, reducing forcecount or the number of facilities, exiting certain product lines, and other costs resulting from asset deployment decisions (such as contract termination costs, asset write-downs and vacant facility costs).

Restructuring expenses were $284, $95 and $65 for 2020, 2019 and 2018, respectively, and included $7 and $19 related to acquisitions in 2019 and 2018. The Company expects fiscal year 2021 restructuring expense to exceed $200.

Restructuring costs by business segment follows:

	2018	2019	2020
Automation Solutions	$41	65	**232**
Climate Technologies	20	20	**23**
Tools & Home Products	3	7	**21**
Commercial & Residential Solutions	23	27	**44**
Corporate	1	3	**8**
Total	$65	95	**284**

Costs incurred in 2020 relate to the Company's initiatives to improve operating margins that began in the third quarter of fiscal 2019 and were expanded in the third quarter of fiscal 2020 in response to the effects of COVID-19 on demand for the Company's products. Actions taken in 2020 included workforce reductions of approximately 5,400 positions and the exit of six production facilities worldwide. Costs incurred in 2019 and 2018 primarily relate to the deployment of resources to better serve local markets and higher growth areas, and the integration of acquisitions. Expenses incurred in 2019 and 2018 included actions to exit two and six facilities, and eliminate approximately 1,100 and 1,200 positions, respectively.

The change in the liability for restructuring costs during the years ended September 30 follows:

	2019	EXPENSE	UTILIZED/PAID	2020
Severance and benefits	$62	**239**	**125**	**176**
Other	7	**45**	**47**	**5**
Total	$69	**284**	**172**	**181**

	2018	EXPENSE	UTILIZED/PAID	2019
Severance and benefits	$46	72	56	62
Other	6	23	22	7
Total	$52	95	78	69

The tables above do not include $20 of costs related to restructuring actions incurred for the year ended September 30, 2020 that are required to be reported in cost of sales.

(7) Leases

The components of lease expense for the year ended September 30, 2020 were as follows:

	2020
Operating lease expense	**$207**
Variable lease expense	**$ 19**

Short-term lease expense and sublease income were immaterial for the year ended September 30, 2020. Cash paid for operating leases is classified within operating cash flows and was $201 for the year ended September 30, 2020. Operating lease right-of-use asset additions were $210 for the year ended September 30, 2020.

The following table summarizes the balances of the Company's operating lease right-of-use assets and operating lease liabilities as of September 30, 2020, the vast majority of which relates to offices and manufacturing facilities:

	2020
Right-of-use assets (Other assets)	**$508**
Current lease liabilities (Accrued expenses)	**$148**
Noncurrent lease liabilities (Other liabilities)	**$373**

The weighted-average remaining lease term for operating leases was 4.6 years and the weighted-average discount rate was 2.8 percent as of September 30, 2020.

Future maturities of operating lease liabilities as of September 30, 2020 are summarized below:

	2020
2021	$159
2022	122
2023	94
2024	66
2025	39
Thereafter	85
Total lease payments	565
Less: Interest	44
Total lease liabilities	$521

Lease commitments that have not yet commenced were immaterial as of September 30, 2020.

The future minimum annual rentals under noncancelable long-term leases as of September 30, 2019 were as follows: $159 in 2020, $112 in 2021, $82 in 2022, $57 in 2023, $38 in 2024 and $63 thereafter.

(8) Goodwill and Other Intangibles

The change in the carrying value of goodwill by business segment follows:

	AUTOMATION SOLUTIONS	CLIMATE TECHNOLOGIES	TOOLS & HOME PRODUCTS	COMMERCIAL & RESIDENTIAL SOLUTIONS	TOTAL
Balance, September 30, 2018	$5,355	670	430	1,100	6,455
Acquisitions	210	—	—	—	210
Foreign currency translation and other	(98)	(2)	(29)	(31)	(129)
Balance, September 30, 2019	5,467	668	401	1,069	6,536
Acquisitions	23	59	—	59	82
Foreign currency translation and other	93	3	20	23	116
Balance, September 30, 2020	**$5,583**	**730**	**421**	**1,151**	**6,734**

The gross carrying amount and accumulated amortization of identifiable intangible assets by major class follow:

	CUSTOMER RELATIONSHIPS		INTELLECTUAL PROPERTY		CAPITALIZED SOFTWARE		TOTAL	
	2019	2020	2019	2020	2019	2020	2019	2020
Gross carrying amount	$1,973	2,059	1,565	1,628	1,334	1,419	4,872	5,106
Less: Accumulated amortization	582	731	650	773	1,025	1,134	2,257	2,638
Net carrying amount	$1,391	1,328	915	855	309	285	2,615	2,468

Intangible asset amortization expense for the major classes included above for 2020, 2019 and 2018 was $369, $359 and $314, respectively. Based on intangible asset balances as of September 30, 2020, amortization expense is expected to approximate $352 in 2021, $316 in 2022, $291 in 2023, $256 in 2024 and $236 in 2025. These amounts do not include the impact of the acquisition of Open Systems International, Inc., which closed on October 1, 2020.

(9) Financial Instruments

HEDGING ACTIVITIES

As of September 30, 2020, the notional amount of foreign currency hedge positions was approximately $2.2 billion, while commodity hedge contracts totaled approximately $80 (primarily 34 million pounds of copper and aluminum). All derivatives receiving hedge accounting are cash flow hedges. The majority of hedging gains and losses deferred as of September 30, 2020 are expected to be recognized over the next 12 months as the underlying forecasted transactions occur. Gains and losses on foreign currency derivatives reported in Other deductions, net reflect hedges of balance sheet exposures that do not receive hedge accounting.

NET INVESTMENT HEDGE

In fiscal 2019, the Company issued euro-denominated debt of €1.5 billion. The euro notes reduce foreign currency risk associated with the Company's international subsidiaries that use the euro as their functional currency and have been designated as a hedge of a portion of the investment in these operations. Foreign currency gains or losses associated with the euro-denominated debt are deferred in accumulated other comprehensive income (loss) and will remain until the hedged investment is sold or substantially liquidated.

Amounts included in earnings and other comprehensive income follow:

		GAIN (LOSS) TO EARNINGS			GAIN (LOSS) TO OCI		
		2018	2019	**2020**	2018	2019	**2020**
	Location						
Commodity	Cost of sales	$ 13	(11)	**(8)**	(7)	(10)	**10**
Foreign currency	Sales	(2)	(7)	**(5)**	(11)	(8)	**4**
Foreign currency	Cost of sales	4	20	**4**	20	14	**(25)**
Foreign currency	Other deductions, net	(15)	66	**(40)**			
Net Investment Hedge							
Euro denominated debt					—	70	**(123)**
Total		$ —	68	**(49)**	2	66	**(134)**

Regardless of whether derivatives and non-derivative financial instruments receive hedge accounting, the Company expects hedging gains or losses to be essentially offset by losses or gains on the related underlying exposures. The amounts ultimately recognized will differ from those presented above for open positions, which remain subject to ongoing market price fluctuations until settlement. Derivatives receiving hedge accounting are highly effective and no amounts were excluded from the assessment of hedge effectiveness.

FAIR VALUE MEASUREMENT

The estimated fair value of long-term debt was $7.3 billion and $5.3 billion, respectively, as of September 30, 2020 and 2019, which exceeded the carrying value by $629 and $469, respectively. The fair values of commodity and foreign currency contracts were reported in Other current assets and Accrued expenses as summarized below:

	2019		**2020**	
	ASSETS	LIABILITIES	**ASSETS**	**LIABILITIES**
Commodity	$ —	8	**11**	**—**
Foreign currency	$ 29	12	**26**	**25**

(10) Short-Term Borrowings and Lines of Credit

Short-term borrowings and current maturities of long-term debt are as follows:

	2019	**2020**
Current maturities of long-term debt	$ 515	**322**
Commercial paper	929	**838**
Total	$1,444	**1,160**

Interest rate for weighted-average short-term borrowings at year end	2.1%	**0.1%**

In May 2018, the Company entered into a $3.5 billion five-year revolving backup credit facility with various banks, which replaced the April 2014 $3.5 billion facility. The credit facility is maintained to support general corporate purposes, including commercial paper borrowings. The Company has not incurred any borrowings under this or previous facilities. The credit facility contains no financial covenants and is not subject to termination based on a change of credit rating or material adverse changes. The facility is unsecured and may be accessed under various interest rate and currency denomination alternatives at the Company's option. Fees to maintain the facility are immaterial.

(11) Long-Term Debt

The details of long-term debt follow:

	2019	2020
4.875% notes due October 2019	$ 500	—
4.25% notes due November 2020	300	**300**
2.625% notes due December 2021	500	**500**
2.625% notes due February 2023	500	**500**
0.375% notes due May 2024	545	**586**
3.15% notes due June 2025	500	**500**
1.25% notes due October 2025	545	**586**
0.875% notes due October 2026	—	**750**
1.8% notes due October 2027	—	**500**
2.0% notes due October 2029	545	**586**
1.95% notes due October 2030	—	**500**
6.0% notes due August 2032	250	**250**
6.125% notes due April 2039	250	**250**
5.25% notes due November 2039	300	**300**
2.75% notes due October 2050	—	**500**
Other	57	**40**
Long-term debt	4,792	**6,648**
Less: Current maturities	515	**322**
Total, net	$4,277	**6,326**

Long-term debt maturing during each of the four years after 2021 is $525, $511, $582 and $497, respectively. Total interest paid on long-term debt was approximately $163, $195 and $193 in 2020, 2019 and 2018, respectively. During the year, the Company repaid $500 of 4.875% notes that matured in October 2019. In April 2020, the Company issued $500 of 1.8% notes due October 2027, $500 of 1.95% notes due October 2030 and $500 of 2.75% notes due October 2050. In September 2020, the Company issued $750 of 0.875% notes due October 2026.

In 2019, the Company repaid $400 of 5.25% notes that matured in October 2018 and $250 of 5.0% notes that matured in April 2019. In January 2019, the Company issued €500 of 1.25% notes due October 2025 and €500 of 2.0% notes due October 2029. In May 2019, the Company issued €500 of 0.375% notes due May 2024.

The Company maintains a universal shelf registration statement on file with the SEC under which it can issue debt securities, preferred stock, common stock, warrants, share purchase contracts or share purchase units without a predetermined limit. Securities can be sold in one or more separate offerings with the size, price and terms to be determined at the time of sale.

(12) Pension and Postretirement Plans

Retirement plans expense includes the following components:

	U.S. PLANS			NON-U.S. PLANS		
	2018	2018	2020	2018	2019	2020
Defined benefit plans:						
Service cost (benefits earned during the period)	$ 52	47	**57**	24	24	**30**
Interest cost	141	155	**125**	39	38	**30**
Expected return on plan assets	(283)	(281)	**(268)**	(67)	(68)	**(72)**
Net amortization and other	129	81	**148**	14	6	**17**
Net periodic pension expense	39	2	**62**	10	—	**5**
Defined contribution plans	132	125	**112**	52	56	**56**
Total retirement plans expense	$ 171	127	**174**	62	56	**61**

Net periodic pension expense increased in 2020 primarily due to higher amortization expense. For defined contribution plans, the Company makes cash contributions based on plan requirements, which are expensed as incurred.

The Company's principal U.S. defined benefit plan is closed to employees hired after January 1, 2016 while shorter-tenured employees ceased accruing benefits effective October 1, 2016.

Details of the changes in the actuarial present value of the projected benefit obligation and the fair value of plan assets for defined benefit pension plans follow:

	U.S. PLANS		NON-U.S. PLANS	
	2019	**2020**	2019	**2020**
Projected benefit obligation, beginning	$ 3,957	**4,410**	1,442	**1,584**
Service cost	47	**57**	24	**30**
Interest cost	155	**125**	38	**30**
Actuarial loss	608	**260**	216	**3**
Benefits paid	(206)	**(202)**	(36)	**(37)**
Settlements	(152)	**(111)**	(41)	**(46)**
Foreign currency translation and other	1	**(14)**	(59)	**69**
Projected benefit obligation, ending	$ 4,410	**4,525**	1,584	**1,633**
Fair value of plan assets, beginning	$ 4,233	**4,208**	1,243	**1,284**
Actual return on plan assets	316	**466**	135	**58**
Employer contributions	16	**20**	44	**46**
Benefits paid	(206)	**(202)**	(36)	**(37)**
Settlements	(152)	**(111)**	(41)	**(46)**
Foreign currency translation and other	1	**2**	(61)	**62**
Fair value of plan assets, ending	$ 4,208	**4,383**	1,284	**1,367**
Net amount recognized in the balance sheet	$ (202)	**(142)**	(300)	**(266)**
Location of net amount recognized in the balance sheet:				
Noncurrent asset	$ 67	**140**	97	**125**
Current liability	(11)	**(11)**	(14)	**(15)**
Noncurrent liability	(258)	**(271)**	(383)	**(376)**
Net amount recognized in the balance sheet	$ (202)	**(142)**	(300)	**(266)**
Pretax accumulated other comprehensive loss	$(1,040)	**(937)**	(307)	**(316)**

Approximately $159 of the $1,253 of pretax losses deferred in accumulated other comprehensive income (loss) at September 30, 2020 will be amortized to expense in 2021. As of September 30, 2020, U.S. pension plans were underfunded by $142 in total, including unfunded plans totaling $223. The non-U.S. plans were underfunded by $266, including unfunded plans totaling $319.

As of the September 30, 2020 and 2019 measurement dates, the plans' total accumulated benefit obligation was $5,859 and $5,682, respectively. The total projected benefit obligation, accumulated benefit obligation and fair value of plan assets for individual plans with accumulated benefit obligations in excess of plan assets were $1,153, $1,034 and $492, respectively, for 2020, and $1,113, $991 and $456, respectively, for 2019.

Future benefit payments by U.S. plans are estimated to be $212 in 2021, $219 in 2022, $225 in 2023, $231 in 2024, $235 in 2025 and $1,219 in total over the five years 2026 through 2030. Based on foreign currency exchange rates as of September 30, 2020, future benefit payments by non-U.S. plans are estimated to be $72 in 2021, $72 in 2022, $72 in 2023, $78 in 2024, $79 in 2025 and $441 in total over the five years 2026 through 2030. The Company expects to contribute approximately $50 to its retirement plans in 2021.

The weighted-average assumptions used in the valuation of pension benefits follow:

	U.S. PLANS			NON-U.S. PLANS		
	2018	2019	**2020**	2018	2019	**2020**
Net pension expense:						
Discount rate used to determine service cost	3.95%	4.33%	**3.40%**	2.6%	2.7%	**1.9%**
Discount rate used to determine interest cost	3.25%	3.98%	**2.87%**	2.6%	2.7%	**1.9%**
Expected return on plan assets	7.00%	7.00%	**6.75%**	5.7%	6.1%	**5.8%**
Rate of compensation increase	3.25%	3.25%	**3.25%**	3.4%	3.5%	**3.7%**
Benefit obligations:						
Discount rate	4.26%	3.22%	**2.81%**	2.7%	1.9%	**1.9%**
Rate of compensation increase	3.25%	3.25%	**3.25%**	3.5%	3.7%	**3.6%**

The discount rate for the U.S. retirement plans was 2.81 percent as of September 30, 2020. An actuarially developed, company-specific yield curve is used to determine the discount rate. To determine the service and interest cost components of pension expense for its U.S. retirement plans, the Company applies the specific spot rates along the yield curve, rather than the single weighted-average rate, to the projected cash flows to provide more precise measurement of these costs. The expected return on plan assets assumption is determined by reviewing the investment returns of the plans for the past 10 years plus longer-term historical returns of an asset mix approximating the Company's asset allocation targets, and periodically comparing these returns to expectations of investment advisors and actuaries to determine whether long-term future returns are expected to differ significantly from the past.

The Company's asset allocations at September 30, 2020 and 2019, and weighted-average target allocations follow:

	U.S. PLANS			NON-U.S. PLANS		
	2019	**2020**	TARGET	2019	**2020**	TARGET
Equity securities	53%	**49%**	45-55%	42%	**41%**	40-50%
Debt securities	46	**45**	40-50	47	**48**	45-55
Other	1	**6**	0-10	11	**11**	5-15
Total	100%	**100%**	100%	100%	**100%**	100%

The primary objective for the investment of pension assets is to secure participant retirement benefits by earning a reasonable rate of return. Plan assets are invested consistent with the provisions of the prudence and diversification rules of ERISA and with a long-term investment horizon. The Company continuously monitors the value of assets by class and routinely rebalances to remain within target allocations. The equity strategy is to minimize concentrations of risk by investing primarily in a mix of companies that are diversified across geographies, market capitalization, style, sectors and industries worldwide. The approach for bonds emphasizes investment-grade corporate and government debt with maturities matching a portion of the longer duration pension liabilities. The bonds strategy also includes a high-yield element which is generally shorter in duration. For diversification, a small portion of U.S. plan assets is allocated to private equity partnerships and real asset fund investments, providing opportunities for above market returns. Leveraging techniques are not used and the use of derivatives in any fund is limited and inconsequential.

The fair values of defined benefit pension assets as of September 30, organized by asset class and by the fair value hierarchy of ASC 820, *Fair Value Measurement*, follow. Investments valued based on the net asset value (NAV) of fund units held, as derived from the fair value of the underlying assets, are excluded from the fair value hierarchy.

	LEVEL 1	LEVEL 2	LEVEL 3	MEASURED AT NAV	TOTAL	PERCENTAGE
2020						
U.S. equities	**$ 785**	**10**		**536**	**1,331**	**23%**
International equities	**513**	**16**		**635**	**1,164**	**20%**
Emerging market equities				**237**	**237**	**4%**
Corporate bonds		**1,202**		**446**	**1,648**	**29%**
Government bonds		**450**		**531**	**981**	**17%**
Other	**4**	**8**	**133**	**244**	**389**	**7%**
Total	**$1,302**	**1,686**	**133**	**2,629**	**5,750**	**100%**

	LEVEL 1	LEVEL 2	LEVEL 3	MEASURED AT NAV	TOTAL	PERCENTAGE
2019						
U.S. equities	$ 789	5	386	284	1,464	27%
International equities	459	15		615	1,089	20%
Emerging market equities				213	213	4%
Corporate bonds		1,008		464	1,472	27%
Government bonds		512		540	1,052	19%
Other	1	8	129	64	202	3%
Total	$1,249	1,548	515	2,180	5,492	100%

Asset Classes

U.S. equities reflect companies domiciled in the U.S., including multinational companies. International equities are comprised of companies domiciled in developed nations outside the U.S. Emerging market equities are comprised of companies domiciled in portions of Asia, Eastern Europe and Latin America. Corporate bonds represent investment-grade debt of issuers primarily from the U.S. Government bonds include investment-grade instruments issued by federal, state and local governments, primarily in the U.S. Other includes cash, interests in mixed asset funds investing in commodities, natural resources, agriculture, real estate and infrastructure funds, life insurance contracts (U.S.), and shares in certain general investment funds of financial institutions or insurance arrangements (non-U.S.) that typically ensure no market losses or provide for a small minimum return guarantee.

Fair Value Hierarchy Categories

Valuations of Level 1 assets for all classes are based on quoted closing market prices from the principal exchanges where the individual securities are traded. Cash is valued at cost, which approximates fair value. Debt securities categorized as Level 2 assets are generally valued based on independent broker/dealer bids or by comparison to other debt securities having similar durations, yields and credit ratings. Valuation techniques and inputs for these assets include discounted cash flow analysis, earnings multiple approaches, recent transactions, transfer restrictions, prevailing discount rates, volatilities, credit ratings and other factors. In the Other class, interests in mixed asset funds are Level 2, and U.S. life insurance contracts and non-U.S. general fund investments and insurance arrangements are Level 3. Investments measured at NAV are primarily nonexchange-traded commingled or collective funds where the underlying securities have observable prices available from active markets and typically provide liquidity daily or within a few days. The NAV category also includes fund investments in private equities, real estate and infrastructure where the fair value of the underlying assets is determined by the investment manager. Total unfunded commitments for the private equity funds were approximately $240 at September 30, 2020. These investments cannot be redeemed, but instead the funds will make distributions through liquidation of the underlying assets, which is expected to occur over approximately the next 10 years. The real estate and infrastructure funds typically offer quarterly redemption.

Postretirement Plans

The Company also sponsors unfunded postretirement benefit plans (primarily health care) for certain U.S. retirees and their dependents. The Company's principal U.S. postretirement plan has been frozen to new employees since 1993. The postretirement benefit liability for all plans was $135 and $147 as of September 30, 2020 and 2019, respectively, and included deferred actuarial gains in accumulated other comprehensive income of $106 and $118, respectively. Service and interest costs are negligible and more than offset by the amortization of deferred actuarial gains, which resulted in net postretirement income of $12 for each of the last three years. Benefits paid were $12 and $13 for 2020 and 2019, respectively, and the Company estimates that future health care benefit payments will be approximately $12 per year for 2021 through 2025, and $42 in total over the five years 2026 through 2030.

(13) Contingent Liabilities and Commitments

The Company is a party to a number of pending legal proceedings and claims, including those involving general and product liability (including asbestos) and other matters, several of which claim substantial amounts of damages. The Company accrues for such liabilities when it is probable that future costs (including legal fees and expenses) will be incurred and such costs can be reasonably estimated. Accruals are based on developments to date; management's estimates of the outcomes of these matters; and the Company's experience in contesting, litigating and settling similar matters. The Company engages an outside expert to develop an actuarial estimate of its expected costs to resolve all pending and future asbestos claims, including defense costs, as well as its related insurance receivables. The reserve for asbestos litigation, which is recorded on an undiscounted basis, is based on projected claims through 2065.

Although it is not possible to predict the ultimate outcome of these matters, the Company historically has been largely successful in defending itself against claims and suits that have been brought against it, and will continue to defend itself vigorously in all such matters. While the Company believes a material adverse impact is unlikely, given the inherent uncertainty of litigation, a remote possibility exists that a future development could have a material adverse impact on the Company. The Company enters into certain indemnification agreements in the ordinary course of business in which the indemnified party is held harmless and is reimbursed for losses incurred from claims by third parties, usually up to a prespecified limit. In connection with divestitures of certain assets or businesses, the Company often provides indemnities to the buyer with respect to certain matters including, for example, environmental or unidentified tax liabilities related to periods prior to the disposition. Because of the uncertain nature of the indemnities, the maximum liability cannot be quantified. As such, contingent liabilities are recorded when they are both probable and reasonably estimable. Historically, payments under indemnity arrangements have been inconsequential.

At September 30, 2020, there were no known contingent liabilities (including guarantees, pending litigation, taxes and other claims) that management believes will be material in relation to the Company's financial statements, nor were there any material commitments outside the normal course of business.

(14) Income Taxes

Pretax earnings consist of the following:

	2018	2019	**2020**
United States	$1,652	1,771	**1,360**
Non-U.S.	1,015	1,088	**975**
Total pretax earnings	$2,667	2,859	**2,335**

The principal components of income tax expense follow:

	2018	2019	**2020**
Current:			
U.S. federal	$341	247	**123**
State and local	52	24	**15**
Non-U.S.	300	308	**288**
Deferred:			
U.S. federal	(224)	(2)	**(44)**
State and local	(11)	12	**1**
Non-U.S.	(15)	(58)	**(38)**
Income tax expense	$443	531	**345**

Reconciliations of the U.S. federal statutory income tax rate to the Company's effective tax rate follow. For fiscal 2018, the U.S. federal statutory rate was 35 percent for one quarter and 21 percent for three quarters.

	2018	2019	**2020**
U.S. federal statutory rate	24.5%	21.0%	**21.0%**
State and local taxes, net of U.S. federal tax benefit	1.2	1.0	**0.6**
Non-U.S. rate differential	0.8	1.8	**1.7**
Non-U.S. tax holidays	(0.8)	(1.1)	**(1.1)**
Research and development credits	(0.2)	(0.3)	**(1.8)**
U.S. manufacturing deduction	(1.1)	—	**—**
Foreign derived intangible income	—	(1.1)	**(1.2)**
Gain on divestiture	1.0	—	**—**
Subsidiary restructuring	(2.0)	(2.6)	**(4.4)**
Transition impact of Tax Act	(7.1)	—	**—**
Other	0.3	(0.1)	**—**
Effective income tax rate	16.6%	18.6%	**14.8%**

The tax rates for 2020, 2019 and 2018 include benefits from restructuring subsidiaries of $103 ($0.17 per share), $74 ($0.12 per share) and $53 ($0.08 per share), respectively. The increase in research and development credits in the current year was due to the impact of a research and development tax credit study.

On December 22, 2017, the U.S. government enacted tax reform, the Tax Cuts and Jobs Act (the "Tax Act"), which made comprehensive changes to U.S. federal income tax laws by moving from a global to a modified territorial tax regime. The Tax Act includes a reduction of the U.S. corporate income tax rate from 35 percent to 21 percent in calendar year 2018 along with the elimination of certain deductions and credits, and a one-time "deemed repatriation" of accumulated non-U.S. earnings. During 2018, the Company recognized a net tax benefit of $189 ($0.30 per share) due to impacts of the Tax Act, consisting of a $94 benefit on revaluation of net deferred income tax liabilities to the lower tax rate, $35 of expense for the tax on deemed repatriation of accumulated non-U.S. earnings and withholding taxes, and the reversal of $130 accrued in previous periods for the planned repatriation of non-U.S. cash. The Company completed its accounting for the Tax Act in the first quarter of fiscal 2019.

Effective in fiscal 2019, the Tax Act also subjects the Company to U.S. tax on global intangible low-taxed income earned by certain of its non-U.S. subsidiaries. The Company has elected to recognize this tax as a period expense when it is incurred.

On March 27, 2020, the CARES Act was enacted in response to the COVID-19 pandemic, and among other things, provides tax relief to businesses. Tax provisions of the CARES Act include the deferral of certain payroll taxes, relief for retaining employees, and other provisions. The Company expects to defer $75 of certain payroll taxes through the end of calendar year 2020, of which $48 was deferred through September 30, 2020.

Non-U.S. tax holidays reduce tax rates in certain jurisdictions and are expected to expire over the next two years.

Following are changes in unrecognized tax benefits before considering recoverability of any cross-jurisdictional tax credits (U.S. federal, state and non-U.S.) and temporary differences. The amount of unrecognized tax benefits is not expected to change significantly within the next 12 months.

	2019	**2020**
Unrecognized tax benefits, beginning	$158	**159**
Additions for current year tax positions	15	**25**
Additions for prior year tax positions	18	**29**
Reductions for prior year tax positions	(22)	**(8)**
Acquisitions and divestitures	4	**—**
Reductions for settlements with tax authorities	(5)	**—**
Reductions for expiration of statutes of limitations	(9)	**(10)**
Unrecognized tax benefits, ending	$159	**195**

If none of the unrecognized tax benefits shown is ultimately paid, the tax provision and the calculation of the effective tax rate would be favorably impacted by $163, which is net of cross-jurisdictional tax credits and temporary differences. The Company accrues interest and penalties related to income taxes in income tax expense. Total interest and penalties recognized were $1, $4 and $2 in 2020, 2019 and 2018, respectively. As of September 30, 2020 and 2019, total accrued interest and penalties were $29 and $27, respectively.

The U.S. is the major jurisdiction for which the Company files income tax returns. U.S. federal tax returns are closed for years through 2013. The status of state and non-U.S. tax examinations varies due to the numerous legal entities and jurisdictions in which the Company operates.

The principal items that gave rise to deferred income tax assets and liabilities follow:

	2019	2020
Deferred tax assets:		
Net operating losses, capital losses and tax credits	$ 407	**487**
Accrued liabilities	228	**219**
Postretirement and postemployment benefits	36	**33**
Employee compensation and benefits	110	**119**
Pensions	95	**69**
Other	121	**137**
Total	$ 997	**1,064**
Valuation allowances	$(307)	**(293)**
Deferred tax liabilities:		
Intangibles	$(637)	**(652)**
Property, plant and equipment	(195)	**(212)**
Undistributed non-U.S. earnings	(49)	**(36)**
Other	(39)	**(33)**
Total	$(920)	**(933)**
Net deferred income tax liability	$(230)	**(162)**

Total income taxes paid were approximately $400, $650 and $680 in 2020, 2019 and 2018, respectively. Net operating losses, capital losses and tax credits include $126 of capital losses expected to be recovered in the next 12 months. More than half of the remaining $361 of net operating losses and tax credits expire over the next 9 years, while most of the remainder can be carried forward indefinitely.

(15) Stock-Based Compensation

The Company's stock-based compensation plans include performance shares, restricted stock, restricted stock units, and stock options. Although the Company has discretion, shares distributed under these plans are issued from treasury stock.

Total compensation expense and income tax benefits for stock options and incentive shares follows. The Company's performance shares awards are marked-to-market each period based on changes in the stock price.

	2018	2019	2020
Performance shares	$192	96	**98**
Restricted stock and restricted stock units	17	21	**11**
Stock options	7	3	**1**
Total stock compensation expense	$216	120	**110**
Income tax benefits recognized	$ 42	20	**18**

As of September 30, 2020, total unrecognized compensation expense related to unvested shares awarded under these plans was $127, which is expected to be recognized over a weighted-average period of 1.7 years.

PERFORMANCE SHARES, RESTRICTED STOCK AND RESTRICTED STOCK UNITS

The Company's incentive shares plans include performance shares awards which distribute the value of common stock to key management employees at the conclusion of a three-year period subject to certain operating performance conditions and other restrictions. The form of distribution is primarily shares of common stock, with a portion in cash in the first quarter following the end of the applicable three-year performance period. Dividend equivalents are only paid on earned awards after the performance period has concluded. Compensation expense for performance shares is recognized over the service period based on the number of shares ultimately expected to be earned. Performance shares awards are accounted for as liabilities in accordance with ASC 718, *Compensation - Stock Compensation,*, with compensation expense adjusted at the end of each reporting period to reflect the change in fair value of the awards.

Information related to performance share payouts for the years ended September 30, 2019 and 2020 follows (shares in thousands):

	2019	2020
Performance period	2016 - 2018	**2017 - 2019**
Percent payout	97%	**107%**
Total shares earned	1,819	**2,008**
Shares distributed in cash, primarily for tax withholding	795	**883**

As of September 30, 2020, approximately 1,538,000 shares awarded primarily in 2018 were outstanding, contingent on the Company achieving its performance objectives through 2020. The objectives for these shares were met at the 100 percent level and the shares will be distributed in early 2021.

Additionally, the rights to receive approximately 1,592,000 and 1,381,000 common shares were awarded in 2020 and 2019, respectively, under the new performance shares program, and are outstanding and contingent upon the Company achieving its performance objectives through 2022 and 2021, respectively.

Incentive shares plans also include restricted stock awards and restricted stock units. Restricted stock awards involve distribution of common stock to key management employees subject to cliff vesting at the end of service periods ranging from three to ten years while restricted stock units granted to employees cliff vest at the end of a three-year period. The fair value of restricted stock awards and restricted stock units is determined based on the average of the high and low market prices of the Company's common stock on the date of grant, with compensation expense recognized ratably over the applicable vesting period. In 2020, approximately 173,000 shares of restricted stock vested as a result of participants fulfilling the applicable service requirements. Consequently, approximately 100,000 shares were issued while 73,000 shares were withheld for income taxes in accordance with minimum withholding requirements. As of September 30, 2020, there were approximately 1,405,000 shares of unvested restricted stock and restricted stock units outstanding.

In addition to the employee stock option and incentive shares plans, in 2020 the Company awarded approximately 19,000 shares of restricted stock and 2,000 restricted stock units under the restricted stock plan for non-management directors. As of September 30, 2020, approximately 119,000 shares were available for issuance under this plan.

As of September 30, 2020, 7.0 million shares remained available for award under incentive shares plans.

Changes in shares outstanding but not yet earned under incentive shares plans during the year ended September 30, 2020 follow (shares in thousands; assumes 100 percent payout of unvested awards):

	SHARES	AVERAGE GRANT DATE FAIR VALUE PER SHARE
Beginning of year	**6,325**	**$60.63**
Granted	**1,949**	**$72.42**
Adjustment for performance results achieved	**131**	**$51.98**
Earned/vested	**(2,259)**	**$52.42**
Canceled	**(230)**	**$67.59**
End of year	**5,916**	**$67.22**

Information related to incentive shares plans follows:

	2018	2019	2020
Total fair value of shares earned/vested	$20	145	**164**
Share awards distributed in cash, primarily for tax withholding	$ 9	73	**81**

STOCK OPTIONS

There were no stock option grants in 2020 and 2019, and options granted in 2018 were immaterial. The Company's stock option plans permit key officers and employees to purchase common stock at specified prices, which are equal to 100 percent of the closing market price of the Company's stock on the date of grant. Options generally vest one-third in each of the three years subsequent to grant and expire 10 years from the date of grant. Compensation expense is recognized ratably over the vesting period based on the number of options expected to vest. As of September 30, 2020, 11.6 million options were available for grant under the plans.

Changes in shares subject to options during the year ended September 30, 2020 follow (shares in thousands):

	WEIGHTED-AVERAGE EXERCISE PRICE PER SHARE	SHARES	TOTAL INTRINSIC VALUE OF SHARES	AVERAGE REMAINING LIFE (YEARS)
Beginning of year	**$57.23**	**6,915**		
Options granted	**—**	**—**		
Options exercised	**$55.43**	**(2,743)**		
Options canceled	**$58.21**	**(39)**		
End of year	**$58.42**	**4,133**	**$31**	**3.9**
Exercisable at end of year	**$58.41**	**4,126**	**$31**	**3.9**

Information related to stock options follows:

	2018	2019	**2020**
Cash received for option exercises	$143	40	**126**
Intrinsic value of options exercised	$ 53	16	**47**
Tax benefits related to option exercises	$ 7	8	**8**

(16) Common and Preferred Stock

At September 30, 2020, 29.4 million shares of common stock were reserved for issuance under the Company's stock-based compensation plans. During 2020, 16.4 million common shares were purchased and 3.4 million treasury shares were reissued. In 2019, 19.9 million common shares were purchased and 1.8 million treasury shares were reissued.

At September 30, 2020 and 2019, the Company had 5.4 million shares of $2.50 par value preferred stock authorized, with none issued.

(17) Accumulated Other Comprehensive Income (Loss)

Activity in Accumulated other comprehensive income (loss) is shown below:

	2018	2019	**2020**
Foreign currency translation			
Beginning balance	$ (369)	(600)	**(794)**
Other comprehensive income (loss), net of taxes of $0, $(16) and $29, respectively	(214)	(194)	**83**
Reclassified to gain/loss on sale of business	(17)	—	**—**
Ending balance	(600)	(794)	**(711)**
Pension and postretirement			
Beginning balance	(662)	(420)	**(928)**
Actuarial gains (losses) deferred during the period, net of taxes of $(76), $165 and $15, respectively	250	(560)	**(49)**
Amortization of deferred actuarial losses into earnings, net of taxes of $(29), $(15) and $(34), respectively	94	52	**113**
Adoption of accounting standard update	(102)	—	**—**
Ending balance	(420)	(928)	**(864)**
Cash flow hedges			
Beginning balance	12	5	**—**
Gains (Losses) deferred during the period, net of taxes of $0, $1 and $2, respectively	2	(3)	**(9)**
Reclassifications of realized (gains) losses to sales and cost of sales, net of taxes of $4, $0 and $(2), respectively	(11)	(2)	**(7)**
Adoption of accounting standard update	2	—	**—**
Ending balance	5	—	**(2)**
Accumulated other comprehensive income (loss)	$(1,015)	(1,722)	**(1,577)**

(18) Business Segments Information

The Company designs and manufactures products and delivers services that bring technology and engineering together to provide innovative solutions for customers in a wide range of industrial, commercial and consumer markets around the world. The Company reports three segments: **Automation Solutions**; and **Climate Technologies** and **Tools & Home Products**, which together comprise the Commercial & Residential Solutions business.

The **Automation Solutions** segment enables process, hybrid and discrete manufacturers to maximize production, protect personnel and the environment, reduce project costs, and optimize their energy efficiency and operating costs through a broad offering of integrated solutions, software, services and products, including measurement and analytical instrumentation, industrial valves and equipment, and process control software and systems. Markets served include oil and gas, refining, chemicals, power generation, life sciences, food and beverage, automotive, pulp and paper, metals and mining, and municipal water supplies. The segment's major product offerings are described below.

- **Measurement & Analytical Instrumentation** products measure the physical properties of liquids or gases in a process stream and communicate this information to a process control system or other software applications, and analyze the chemical composition of process fluids and emissions to enhance quality and efficiency, as well as environmental compliance.

- **Valves, Actuators & Regulators** consists of control, isolation and pressure relief valves which respond to commands from a control system to continuously and precisely modulate the flow of process fluids, smart actuation and control technologies, pressure management products, and industrial and residential regulators that reduce the pressure of fluids moving from high-pressure supply lines into lower pressure systems.

- **Industrial Solutions** provides fluid control and pneumatic mechanisms, electrical distribution equipment, and materials joining and precision cleaning products which are used in a variety of manufacturing operations to provide integrated solutions to customers.

- **Process Control Systems & Solutions** provides a digital ecosystem that controls plant processes by communicating with and adjusting the "intelligent" plant devices described above to provide precision measurement, control, monitoring, asset optimization, and plant safety and reliability for plants that produce power, or process fluids or other items.

The **Commercial & Residential Solutions** business consists of the Climate Technologies and Tools & Home Products segments. This business provides products and solutions that promote energy efficiency, enhance household and commercial comfort, and protect food quality and sustainability through heating, air conditioning and refrigeration technology, as well as a broad range of mechanical, electrical, utility and do-it-yourself tools and appliance solutions.

The **Climate Technologies** segment provides products, services and solutions for all areas of the climate control industry, including residential heating and cooling, commercial air conditioning, commercial and industrial refrigeration, and cold chain management. Products include compressors, temperature sensors and controls, thermostats, flow controls, and stationary and mobile remote monitoring technologies and services that enable homeowners and businesses to better manage their heating, air conditioning and refrigeration systems for improved control and comfort, and lower energy costs.

The **Tools & Home Products** segment offers tools for professionals and homeowners and appliance solutions. Products include professional pipe-working tools, electrical and utility tools, residential and commercial food waste disposers, and wet-dry vacuums.

The principal distribution method for each segment is direct sales forces, although the Company also uses independent sales representatives and distributors. Due to its global presence, certain of the Company's international operations are subject to risks including the stability of governments and business conditions in foreign countries which could result in adverse changes in exchange rates, changes in regulations or disruption of operations.

The primary income measure used for assessing segment performance and making operating decisions is earnings before interest and income taxes. Certain expenses are reported at Corporate, including stock compensation expense and a portion of pension and postretirement benefit costs. Corporate and other includes unallocated corporate expenses, acquisition/divestiture costs, first year acquisition accounting charges (which include fair value adjustments related to inventory, backlog and deferred revenue) and other items. Corporate assets are primarily comprised of cash and equivalents, investments and certain fixed assets. Summarized below is information about the Company's operations by business segment and by geography.

BUSINESS SEGMENTS

	SALES			EARNINGS			TOTAL ASSETS		
	2018	2019	**2020**	2018	2019	**2020**	2018	2019	**2020**
Automation Solutions	$11,441	12,202	**11,155**	$1,886	1,947	**1,523**	$13,720	13,996	**14,250**
Climate Technologies	4,454	4,313	**3,980**	972	883	**801**	2,936	2,885	**3,065**
Tools & Home Products	1,528	1,856	**1,663**	380	388	**317**	1,560	1,462	**1,491**
Commercial & Residential Solutions	5,982	6,169	**5,643**	1,352	1,271	**1,118**	4,496	4,347	**4,556**
Corporate items:									
Stock compensation				(216)	(120)	**(110)**			
Unallocated pension and postretirement costs				79	108	**53**			
Corporate and other				(275)	(173)	**(93)**	2,174	2,154	**4,076**
Eliminations/Interest	(15)	1	**(13)**	(159)	(174)	**(156)**			
Total	$17,408	18,372	**16,785**	$2,667	2,859	**2,335**	$20,390	20,497	**22,882**

Automation Solutions sales by major product offering are summarized below:

	2018	2019	**2020**
Measurement & Analytical Instrumentation	$ 3,604	3,807	**3,237**
Valves, Actuators & Regulators	3,749	3,794	**3,589**
Industrial Solutions	1,967	2,232	**2,012**
Process Control Systems & Solutions	2,121	2,369	**2,317**
Total	$11,441	12,202	**11,155**

	DEPRECIATION AND AMORTIZATION			CAPITAL EXPENDITURES		
	2018	2019	**2020**	2018	2019	**2020**
Automation Solutions	$488	535	**557**	$295	297	**308**
Climate Technologies	171	176	**184**	209	222	**158**
Tools & Home Products	44	71	**77**	64	59	**58**
Commercial & Residential Solutions	215	247	**261**	273	281	**216**
Corporate and other	55	40	**36**	49	16	**14**
Total	$758	822	**854**	$617	594	**538**

Depreciation and amortization includes intellectual property, customer relationships and capitalized software.

GEOGRAPHIC INFORMATION

	AUTOMATION SOLUTIONS			COMMERCIAL & RESIDENTIAL SOLUTIONS			TOTAL		
	2018	2019	**2020**	2018	2019	**2020**	2018	2019	**2020**
Americas	$ 5,517	5,850	**5,051**	$3,967	4,253	**3,896**	$ 9,484	10,103	**8,947**
Asia, Middle East & Africa	3,657	3,891	**3,801**	1,384	1,192	**1,053**	5,041	5,083	**4,854**
Europe	2,267	2,461	**2,303**	631	724	**694**	2,898	3,185	**2,997**
Total	$11,441	12,202	**11,155**	$5,982	6,169	**5,643**	$17,423	18,371	**16,798**

Sales in the U.S. were $7,420, $8,390 and $7,939 for 2020, 2019 and 2018, respectively, while Asia, Middle East & Africa includes sales in China of $1,845, $1,962 and $1,955 in those years.

	PROPERTY, PLANT AND EQUIPMENT		
	2018	2019	**2020**
Americas	$2,234	2,339	**2,345**
Asia, Middle East & Africa	652	671	**679**
Europe	676	632	**664**
Total	$3,562	3,642	**3,688**

Assets located in the U.S. were $2,124 in 2020, $2,128 in 2019 and $2,027 in 2018.

(19) Other Financial Data

Items reported in earnings during the years ended September 30 included the following:

	2018	2019	**2020**
Research and development expense	$436	454	**439**
Depreciation expense	$444	463	**485**
Rent expense	$279	285	**239**

Items reported in other noncurrent assets included the following:

	2019	**2020**
Operating lease right-of-use assets	$ —	**508**
Pension assets	$164	**265**
Asbestos-related insurance receivables	$115	**100**
Deferred income taxes	$ 97	**99**

Items reported in accrued expenses included the following:

	2019	**2020**
Customer advances (contract liabilities)	$519	**583**
Employee compensation	$606	**577**
Operating lease liabilities (current)	$ —	**148**
Product warranty	$140	**148**

Other liabilities are summarized as follows:

	2019	**2020**
Pension and postretirement liabilities	$ 775	**769**
Operating lease liabilities (noncurrent)	—	**373**
Deferred income taxes	327	**261**
Asbestos litigation	313	**295**
Other	556	**626**
Total	$1,971	**2,324**

(20) Quarterly Financial Information (Unaudited)

	First Quarter		Second Quarter		Third Quarter		Fourth Quarter		Full Year	
	2019	**2020**	2019	**2020**	2019	**2020**	2019	**2020**	2019	**2020**
Net sales	$4,147	**4,151**	4,570	**4,162**	4,684	**3,914**	4,971	**4,558**	18,372	**16,785**
Gross profit	$1,761	**1,759**	1,925	**1,750**	2,001	**1,618**	2,128	**1,882**	7,815	**7,009**
Net earnings common stockholders	$ 465	**326**	520	**517**	604	**399**	717	**723**	2,306	**1,965**
Net earnings per common share:										
Basic	$ 0.74	**0.53**	0.85	**0.85**	0.98	**0.67**	1.17	**1.21**	3.74	**3.26**
Diluted	$ 0.74	**0.53**	0.84	**0.84**	0.97	**0.67**	1.16	**1.20**	3.71	**3.24**
Dividends per common share	$ 0.49	**0.50**	0.49	**0.50**	0.49	**0.50**	0.49	**0.50**	1.96	**2.00**

Earnings per share are computed independently each period; as a result, the quarterly amounts may not sum to the calculated annual figure.

Emerson Electric Co. common stock (symbol EMR) is listed on the New York Stock Exchange and NYSE Chicago.

Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors
Emerson Electric Co.:

Opinions on the Consolidated Financial Statements and Internal Control Over Financial Reporting
We have audited the accompanying consolidated balance sheets of Emerson Electric Co. and subsidiaries (the Company) as of September 30, 2020 and 2019, the related consolidated statements of earnings, comprehensive income, equity, and cash flows for each of the years in the three-year period ended September 30, 2020, and the related notes (collectively, the consolidated financial statements). We also have audited the Company's internal control over financial reporting as of September 30, 2020, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of September 30, 2020 and 2019, and the results of its operations and its cash flows for each of the years in the three-year period ended September 30, 2020, in conformity with U.S. generally accepted accounting principles. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of September 30, 2020 based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

Change in Accounting Principle
As discussed in Note 1 to the consolidated financial statements, the Company has changed its method of accounting for leases as of October 1, 2019, due to the adoption of Financial Accounting Standards Board Accounting Standards Codification Topic 842, *Leases*.

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

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

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

Definition and Limitations of Internal Control Over Financial Reporting
A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are

being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

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

Critical Audit Matter

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

Sufficiency of Audit Evidence over Net Sales

As discussed in Notes 1, 2 and 18 to the Company's consolidated financial statements, and disclosed in the consolidated statement of earnings, the Company recorded $16.8 billion of net sales in 2020.

We identified the evaluation of the sufficiency of audit evidence over net sales as a critical audit matter. Net sales are recognized primarily from the sale of tangible products from hundreds of Company locations around the world. Evaluating the sufficiency of audit evidence obtained required especially subjective auditor judgment because of the geographical dispersion of the Company's net sales generating activities. This included determining the Company locations at which procedures were performed and the supervision and review of procedures performed at those locations.

The following are the primary procedures we performed to address this critical audit matter. We applied auditor judgment to determine the nature and extent of procedures to be performed over net sales, including the determination of the Company locations at which those procedures were to be performed. At each Company location where procedures were performed, we:

- Evaluated the design and tested the operating effectiveness of certain internal controls over the Company's net sales processes, including the Company's controls over the accurate recording of amounts.
- Assessed the recorded net sales by selecting a sample of transactions and compared the amounts recognized for consistency with underlying documentation, including contracts with customers and shipping documentation.

We evaluated the sufficiency of audit evidence obtained by assessing the results of procedures performed.

KPMG LLP

We or our predecessor firms have served as the Company's auditor since 1938.

St. Louis, Missouri
November 16, 2020

Five-Year Summary

EMERSON ELECTRIC CO. & SUBSIDIARIES

Years ended September 30 | Dollars in millions, except per share amounts or where noted

Results presented in accordance with U.S. GAAP

	2016	2017	2018	2019	**2020**
Summary of Operations					
Net sales	$ 14,522	15,264	17,408	18,372	**16,785**
Gross profit	$ 6,262	6,431	7,432	7,815	**7,009**
Interest expense, net	$ 188	165	159	174	**156**
Earnings from continuing operations common stockholders	$ 1,590	1,643	2,203	2,306	**1,965**
Percent of net sales	11.0%	10.8%	12.7%	12.6%	**11.7%**
Operating cash flow from continuing operations	$ 2,499	2,690	2,892	3,006	**3,083**
Return on common stockholders' equity	20.9%	18.6%	24.9%	26.8%	**23.6%**
Per Share of Common Stock					
Diluted EPS – Earnings from continuing operations	$ 2.45	2.54	3.46	3.71	**3.24**
Cash dividends	$ 1.90	1.92	1.94	1.96	**2.00**
Book value	$ 11.77	13.59	14.22	13.47	**14.06**
Year-End Financial Position					
Operating working capital	$ 1,354	1,007	985	1,113	**866**
Percent of net sales	6.7%	6.6%	5.7%	6.1%	**5.2%**
Property, plant and equipment, net	$ 3,542	3,321	3,562	3,642	**3,688**
Total assets	$ 21,732	19,589	20,390	20,497	**22,882**
Long-term debt	$ 4,051	3,794	3,137	4,277	**6,326**
Common stockholders' equity	$ 7,568	8,718	8,947	8,233	**8,405**
Total debt-to-total capital	46.7%	34.8%	34.7%	41.0%	**47.1%**
Net debt-to-net capital	31.3%	15.4%	29.1%	33.9%	**33.2%**
Other Data					
Capital expenditures	$ 447	476	617	594	**538**
Depreciation	$ 391	414	444	463	**485**
Total taxes, including income taxes	$ 1,086	1,748	901	1,001	**803**
Salaries and wages	$ 3,281	3,478	3,907	4,239	**4,132**
Number of employees	74,500	76,500	87,500	88,000	**83,500**
Approximate number of common stockholders of record at year end	19,724	19,066	18,343	17,776	**17,200**
Average common shares – diluted (in thousands)	646,837	643,351	635,323	620,595	**606,575**

The information presented above reflects the Company's results from continuing operations for all years presented. See Note 4 for information regarding the Company's acquisition and divestiture activities for the last three years, Note 6 for information regarding restructuring activities, and Note 14 for information regarding income taxes, including the effect of U.S. tax reform in 2018.

Board of Directors

CHAIRMAN OF THE BOARD

David N. Farr
St. Louis, Missouri
Chairman and
Chief Executive Officer,
Emerson

INDEPENDENT DIRECTORS

Mark A. Blinn
Dallas, Texas
Retired President and
Chief Executive Officer,
Flowserve Corporation

Clemens A. H. Boersig
Lead Independent Director
Frankfurt, Germany
Retired Chairman,
The Supervisory Board,
Deutsche Bank AG

Joshua B. Bolten
Washington,
District of Columbia
President and Chief Executive
Officer, Business Roundtable

Martin S. Craighead
Houston, Texas
Retired Chairman, President
and Chief Executive Officer,
Baker Hughes Incorporated

William H. Easter III
Houston, Texas
Retired Chairman, President
and Chief Executive Officer,
DCP Midstream LLC

Gloria A. Flach
Marriottsville, Maryland
Retired Corporate Vice
President and Chief
Operating Officer,
Northrop Grumman
Corporation

Arthur F. Golden
New York, New York
Senior Counsel, Davis Polk
& Wardwell LLP

Candace Kendle
Boca Grande, Florida
Retired Chairman and
Chief Executive Officer,
Kendle International Inc.

Lori M. Lee
Dallas, Texas
Chief Executive Officer
AT&T Latin America, Global
Marketing Officer, AT&T Inc.

Matthew S. Levatich
Milwaukee, Wisconsin
Former President and
Chief Executive Officer,
Harley-Davidson Inc.

James S. Turley
St. Louis, Missouri
Retired Chairman of the Board
and Chief Executive Officer,
Ernst & Young LLP

COMMITTEES

Executive Committee
David N. Farr, Chair
Clemens A. H. Boersig
Joshua B. Bolten
Arthur F. Golden
James S. Turley

Audit Committee
James S. Turley, Chair
Mark A. Blinn
Candace Kendle
Lori M. Lee
Matthew S. Levatich

Compensation Committee
Clemens A. H. Boersig, Chair
Mark A. Blinn
Martin S. Craighead
William H. Easter III
Gloria A. Flach

Finance Committee
Arthur F. Golden, Chair
Clemens A. H. Boersig
William H. Easter III
Gloria A. Flach
Lori M. Lee
Matthew S. Levatich

Corporate Governance and Nominating Committee
Joshua B. Bolten, Chair
Martin S. Craighead
Candace Kendle
James S. Turley

ADVISORY DIRECTORS

Frank J. Dellaquila
Senior Executive
Vice President,
Chief Financial Officer

Michael H. Train
President

Steven J. Pelch
Executive Vice President,
Chief Operating Officer

James (Jamie) Froedge
Executive President,
Commercial &
Residential Solutions

S. Lal Karsanbhai
Executive President,
Automation Solutions

Management

EXECUTIVE OFFICERS

David N. Farr
Chairman and
Chief Executive Officer

Frank J. Dellaquila
Senior Executive
Vice President,
Chief Financial Officer

Michael H. Train
President

Steven J. Pelch
Executive Vice President,
Chief Operating Officer

James (Jamie) Froedge
Executive President,
Commercial &
Residential Solutions

S. Lal Karsanbhai
Executive President,
Automation Solutions

Sara Yang Bosco
Senior Vice President,
Secretary and
General Counsel

Mark J. Bulanda
Senior Vice President,
Planning and Development

Katherine Button Bell
Senior Vice President,
Chief Marketing Officer

Michael J. Baughman
Vice President, Controller
and Chief Accounting Officer

Reconciliation of Non-GAAP Measures

RECONCILIATION OF NON-GAAP MEASURES

Dollars in millions, except per share amounts

	2017*	2019	2020	CAGR '17 - '20	CHANGE '19 - '20
Pretax earnings (GAAP)	$2,335	$2,859	**$2,335**	– %	(18)%
Interest expense, net	165	174	**156**	– %	– %
EBIT (non-GAAP)	$2,500	$3,033	**$2,491**	– %	(18)%
Restructuring costs and special advisory fees	78	95	**317**	3 %	8 %
First year acquisition accounting charges	93	–	**–**	(1)%	– %
Adjusted EBIT (non-GAAP)	$2,671	$3,128	**$2,808**	2 %	(10)%
Amortization / depreciation	636	822	**854**	1 %	3 %
Adjusted EBITDA (non-GAAP)	$3,307	$3,950	**$3,662**	3 %	(7)%

	2017*	2019	2020	CAGR '17 - '20	CHANGE '19 - '20
Net earnings (GAAP)	$1,643	$2,306	**$1,965**	6 %	(15)%
Restructuring costs and special advisory fees	53	72	**257**	3 %	8 %
Discrete tax benefits	(47)	(87)	**(119)**	(1)%	(1)%
First year acquisition accounting charges	65	–	**–**	(1)%	– %
Adjusted net earnings (GAAP)	$1,714	$2,291	**$2,103**	7 %	(8)%

	2017*	2019	2020	CAGR '17 - '20	CHANGE '19 - '20
Earnings per share (GAAP)	$ 2.54	$ 3.71	**$ 3.24**	8 %	(13)%
Restructuring costs and special advisory fees	0.08	0.12	**0.42**	3 %	9 %
Discrete tax benefits	(0.07)	(0.14)	**(0.20)**	(1)%	(2)%
First year acquisition accounting charges	0.10	–	**–**	(1)%	– %
Adjusted earnings per share (non-GAAP)	$ 2.65	$ 3.69	**$ 3.46**	9 %	(6)%

	2017*	2019	2020	CAGR '17 - '20	CHANGE '19 - '20
Operating cash flow (GAAP)	$2,690	$3,006	**$3,083**	5 %	3 %
Capital expenditures	(476)	(594)	**(538)**	– %	3 %
Free cash flow (non-GAAP)	$2,214	$2,412	**$2,545**	5 %	6 %

	2017*	2019	2020
Dividends as a percent of operating cash flow (GAAP)	46%	40%	**39%**
Capital expenditures	10%	10%	**9%**
Dividends as a percent of free cash flow (non-GAAP)	56%	50%	**48%**

2017 results presented on a continuing operations basis.

Shareholders' Information

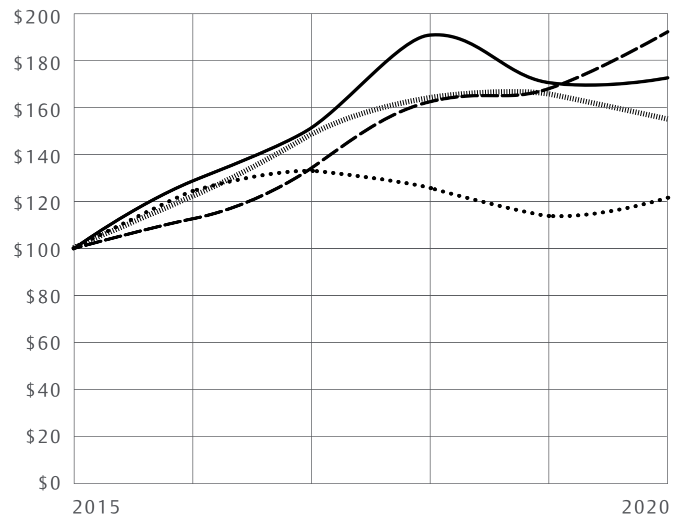
SAFE HARBOR STATEMENT

This Annual Report contains various forward-looking statements and includes assumptions concerning Emerson's operations, future results and prospects. These forward-looking statements are based on current expectations and are subject to risks and uncertainties. Emerson undertakes no obligation to update any such statements to reflect later developments. In connection with the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995, Emerson provides the following cautionary statements identifying important economic, political and technological factors, among others, changes in which could cause the actual results or events to differ materially from those set forth in or implied by the forward-looking statements and related assumptions.

Such factors include, but are not limited to, the following: (1) the current and future business environment, including capital and consumer spending, potential volatility of the end markets served, interest rates, and currency exchange rates; (2) competitive factors and competitor responses to Emerson initiatives; (3) development and market introduction of anticipated new products; (4) the ability to defend and protect our intellectual property rights; (5) favorable environments for and execution of acquisitions and divestitures, domestic and foreign, including regulatory requirements and market values of candidates; (6) integration of acquisitions and separation of disposed businesses; (7) the availability of raw materials and purchased components; (8) stability of governments and business conditions in countries where we operate which could result in adverse changes in exchange rates, changes in regulation, tariffs or trade barriers, nationalization of facilities or disruption of operations; (9) unrestricted access to capital markets; (10) our ability to attract, develop and retain key personnel; (11) ability to prevent security breaches or disruptions of our information technology systems; (12) impact of potential product failures or similar events caused by product defects, cybersecurity incidents or other intentional acts; (13) the scope, duration and ultimate impact of the COVID-19 pandemic (as well as oil and gas price declines and volatility) on the global economy and our customers; (14) changes in tax rates, laws or regulations and the resolution of tax disputes in U.S. and non-U.S. jurisdictions; (15) the impact of improper conduct by our employees, agents or business partners; and (16) the outcome of pending and future litigation, including environmental compliance.

Statements in this Annual Report regarding our aspirational purpose, causes, values, and related commitments, goals or targets, including those regarding sustainability, greenhouse gas emissions, inclusion or other initiatives, contain forward-looking statements and are also intended to qualify for the protections of the "safe harbor" protections of the Private Securities Litigation Reform Act of 1995. Such statements are intended to help Emerson adapt and rise to the call of our various stakeholders. Because success in these areas depends on the collective efforts of others and other factors such as competing economic and regulatory factors, technical advances, policy changes, and supplier and customer engagement, there may be times where actual outcomes vary from those expected. While we strive to live our purpose and make a positive impact on society while continuing to advance towards our commitments, sometimes challenges may delay or block progress and we cannot assure you that the results reflected or implied by any such statements will be realized or achieved.

COMPARISON OF FIVE-YEAR CUMULATIVE SHAREHOLDER RETURN



	2015	2016	2017	2018	2019	2020	CAGR
Emerson	**100**	**128**	**153**	**191**	**172**	**174**	**11.7%**
S&P 500	100	115	137	161	168	194	**14.1%**
Peer Index*	100	125	136	124	116	121	**3.9%**
S&P 500 Capital Goods*	100	123	150	162	165	157	**9.4%**

$100 invested on 9/30/15 in stock or index, including reinvestment of dividends. Fiscal year ending September 30.

*The company has included the S&P 500 Capital Goods Index as a more complete and relevant comparison than the peer index which has been used in prior years. The historic peer index includes ABB Ltd, General Electric, Honeywell, Rockwell Automation, Schneider Electric, Siemens, Raytheon Technologies, and 3M and has been included in this graph for one last year for comparison purposes. Returns for each company in the peer comparator group have been weighted according to that company's respective stock market capitalization according to the beginning of each period for which a return is indicated.

REGISTRAR AND TRANSFER AGENT

By Mail:
Computershare, Inc.
Attention: Emerson Electric Co.
P.O. Box 505000
Louisville, KY 40233

By Phone:
Toll-Free: (888) 213-0970
TDD for Hearing Impaired: (800) 231-5469
Foreign Shareholders: (201) 680-6578
TDD Foreign Shareholders: (201) 680-6610

By Internet:
www.computershare.com/investor

All other inquiries should be addressed to:
Emerson Investor Relations Department
8000 W. Florissant Ave.
St. Louis, MO 63136-8506
Telephone: (314) 553-2197

SHAREHOLDER SERVICES

Inquiries regarding dividend payments, loss or nonreceipt of a stock certificate or dividend check, stock transfers (including name changes), tax information and address changes should be directed to Computershare.

DIVIDEND REINVESTMENT AND STOCK PURCHASE PLAN

The Plan is administered by Computershare, for individual investors who want a convenient way to purchase or sell Emerson Electric Co. stock (NYSE:EMR). Only registered holders of Emerson common stock can participate, however, an initial purchase can be made directly through the Plan. The Plan provides the opportunity to reinvest dividends and is an alternative to traditional methods of buying and selling Emerson common stock. The Plan is not sponsored or administered by Emerson. For further information and an authorization form, contact Computershare.

DIRECT DEPOSIT OF DIVIDENDS

Stockholders may elect to have dividends electronically deposited into a checking or savings account. For details, contact Computershare.

DUPLICATE MAILINGS

When stockholders own shares in more than one account or when several stockholders live at the same address, they may receive multiple copies of the annual report. To eliminate duplicate copies, contact Computershare.

INTERNET ACCESS

Corporate news releases, Forms 10-K, 10-Q and 8-K, the Annual Report, and other information about the Company are available at www.emerson.com

ANNUAL MEETING

The annual meeting of shareholders is scheduled to be held at 10 a.m. CST, Tuesday, February 2, 2021 in Emerson's World Headquarters Building, 8000 W. Florissant Ave., St. Louis, Missouri 63136. Notice of the meeting, proxy statement and proxy were sent or made available to stockholders with this annual report.

10-K REPORT

The Company's 2020 Annual Report on Form 10-K for the fiscal year ended September 30, 2020 filed with the U.S. Securities and Exchange Commission (the "Form 10-K") is available to shareholders without charge by contacting the Emerson Investor Relations Department or by accessing the investor section of our company's website at www.emerson.com, Investors, or by going to the SEC's website at www.sec.gov. The Company's Chief Executive Officer and Chief Financial Officer have furnished the required Form 10-K certifications.

ENVIRONMENTAL PROGRAMS

Information on Emerson's environmental programs may be obtained by contacting:
Emerson Environmental Affairs Department
8000 W. Florissant Ave.
P.O. Box 4100
St. Louis, MO 63136-8506

ANNUAL REPORT

Included in this 2020 Annual Report are financial and operating highlights and summary financial information. Please refer to the Company's Form 10-K for important financial and business information, including Risk Factors, market risk, description of industry segments, and risks of foreign operations. You should read the Form 10-K in connection with this 2020 Annual Report.

Emerson

World Headquarters
8000 W. Florissant Ave.
P.O. Box 4100
St. Louis, MO 63136
Emerson.com