

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549**

FORM 10-K

(Mark one)

**ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
FOR THE YEAR ENDED DECEMBER 31, 2020**
OR

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

Commission file number 1-12317

NOV INC.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction
of incorporation or organization)



76-0475815
(IRS Employer
Identification No.)

7909 Parkwood Circle Drive
Houston, Texas 77036-6565
(Address of principal executive offices)

(713) 346-7500
(Registrant's telephone number, including area code)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value \$.01 per share	NOV	New York Stock Exchange

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

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

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

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

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

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

Large accelerated filer Accelerated filer Emerging growth company
Non-accelerated filer Smaller Reporting Company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to section 13(1) of the Exchange Act.

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

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

The aggregate market value of voting and non-voting common stock held by non-affiliates of the registrant as of June 30, 2020 was \$4.2 billion. As of February 5, 2021, there were 388,211,247 shares of the Company's common stock (\$0.01 par value) outstanding.

Documents Incorporated by Reference

Portions of the Proxy Statement in connection with the 2020 Annual Meeting of Stockholders are incorporated in Part III of this report.

FORM 10-K

PART I

ITEM 1. BUSINESS

General

NOV Inc. (“NOV” or the “Company”) is a leading independent equipment and technology provider to the global energy industry. Originally founded in 1862, NOV and its predecessor companies have spent 159 years helping transform oil and gas field development and improving its cost-effectiveness, efficiency, safety, and environmental impact. Over the past few decades, the Company has pioneered and refined key technologies to improve the economic viability of frontier resources, including unconventional and deepwater oil and gas. More recently, by applying its deep expertise and technology, the company has helped advance the transition toward sustainable energy.

NOV’s extensive proprietary technology portfolio supports the industry’s full-field drilling, completion, and production needs. With unmatched cross-segment capabilities, scope, and scale, NOV continues to develop and introduce technologies that further enhance the economics and efficiencies of energy production, with a focus on automation, predictive analytics, and condition-based maintenance.

NOV serves major-diversified, national, and independent service companies, contractors, and energy producers in 61 countries, operating under three segments: Wellbore Technologies, Completion & Production Solutions, and Rig Technologies.

Business Strategy and Competitive Strengths

NOV’s primary business objective is to generate above-average long-term capital returns and further enhance its position as a leading independent global energy technology and equipment provider by delivering technologies, equipment, and services that help lower the marginal cost and environmental footprint associated with energy development and production from oil, gas, and renewable sources. NOV is executing the following competitive strategies:

Leverage NOV’s advantages of size, scope, scale, and market position

NOV’s position as a leading independent global energy technology and equipment provider affords several competitive advantages, including:

Economies of scale in procurement and manufacturing. NOV’s global leadership and footprint, spanning almost every major petroleum market, provides the Company with economies of scale, enabling development of a unique global supply chain, which allows materials procurement from lower-cost sources. The Company’s global manufacturing footprint and diverse production flexibility also enables NOV to rapidly adapt to demand changes, efficiently leverage manufacturing capacity in high-demand areas, and manufacture goods in lower-cost jurisdictions. NOV’s geographic diversity also reduces potential revenue volatility from shifts in activity location, regional differences in energy prices, and adverse weather events.

Scope and scale for distribution and marketing. With operations in 61 countries, NOV has developed an efficient worldwide distribution network and relationships with virtually every petroleum producer, service company, and contractor. NOV uses its customer relationships and distribution capabilities to accelerate the commercialization of new products and technologies. NOV also routinely develops technologies for the global marketplace where the Company’s infrastructure allows for quick market penetration and creation of a first-mover advantage with standardized operations around certain products.

Reputation, experience, and benefits of fleet standardization. NOV's reputation and experience make its products a lower-risk purchase for customers. The Company benefits from customer efforts to standardize training, maintenance, and spare parts, resulting in reduced downtime and inventory-stocking requirements, lower training costs, and better safety. Customers may prefer standardized equipment from NOV, a well-capitalized market leader with which they can enter into long-term service agreements that offer big-data analytics and condition monitoring to maximize uptime and reduce the total cost of equipment ownership.

Large installed base of equipment. As a leading original equipment manufacturer ("OEM") for oil and gas operations, NOV is well positioned to provide aftermarket support for its large base of installed equipment. Most service companies prefer, and many of their customers demand, OEM aftermarket support. Customers frequently encounter higher risk and cost when they purchase and use potentially incompatible products from different vendors, particularly where products must interact through complex interfaces, which are common sources of failures and unplanned costs. Additionally, certain past events have increased the industry's risk profile with government regulatory bodies, which have shown a strong preference for OEM service contractor critical equipment maintenance.

Digital products and technologies. NOV's size, scale, and breadth of knowledge provide inherent competitive advantages in technology relative to smaller, less-diversified organizations. NOV's proficiencies in building capital equipment, control systems, sensors, field instrumentation, and data acquisition systems provide for unique comprehensive digital energy solutions development. Additionally, NOV's well-established, global field-service infrastructure affords the Company a distinct capability and advantage in the commercialization and support required to deploy digital solutions that must collect, aggregate, and transmit field-level data from complex machinery and equipment in harsh environments. NOV is investing considerable time and resources to develop its Max™ platform and Max™ edge devices, which enable large-scale collection, aggregation, and big-data analytics of real-time equipment and process data, both at the edge and in the cloud. While this platform's initial application was a predictive analytics and condition-based equipment-monitoring solution, it is also the edge-focused backbone of the Company's data services and software solutions and is used for monitoring, analyzing, and optimizing many of the Company's manufacturing operations.

Develop proprietary technologies and solutions that assist oil and gas operators in reducing their marginal cost of supply

NOV strives to further develop its substantial technology portfolio and is known for developing innovative customer productivity solutions. The Company is well positioned to introduce breakthrough technologies that enhance efficiencies and address industry needs, to generate strong returns. The Company's cross-business-unit expertise uniquely positions NOV to pioneer proprietary technologies across its business lines. For example, NOV's Wellbore Technologies and Rig Technologies segments jointly introduced closed-loop drilling technologies, which link real-time data from the well bottom to drilling rig controls and use machine learning to drive greater efficiency. NOV works closely with customers to identify needs, and its technical experts use internal capabilities to develop value-added technologies.

Capitalize on and drive end-market fragmentation

Technology and product availability to all industry participants is a key tenet of NOV's business model. To the extent NOV can provide equipment and technology products that are equal to or better than those developed by service providers, it will prevent any one organization from having a proprietary advantage and therefore drive fragmentation. This fragmentation expands NOV's customer base and avoids customer concentration in most of its businesses. NOV has resisted the recent trend toward vertical integration, leaving the Company in an attractive and unique position as the largest global independent technology and equipment provider to the oilfield service sector. Governments in certain international markets are pursuing initiatives that drive local content and greater local employment. These actions will likely prompt more local startup enterprises, further expanding demand for NOV's equipment.

Leverage core capabilities and competencies to assist customers in efforts to reduce environmental footprint and advance energy transition initiatives

NOV's engineering expertise, complex global supply chain management, low-cost manufacturing, and large-scale energy infrastructure development support provide unique capabilities to assist customers with energy transition advancement. The Company has pioneered numerous innovations that help reduce emissions, including its recently-introduced Ideal eFrac™ equipment, which significantly reduces emissions and lowers costs associated with hydraulic

stimulation, and its PowerBlade™ Kinetic Energy Recovery System, which recaptures energy from cranes, winches, and draw-works. NOV is also a leading geothermal equipment and technology provider, offering a broad array of tools and equipment specifically designed for the ultra-harsh conditions associated with geothermal development. Additionally, with expertise in offshore heavy-lift equipment and naval architectural design, the Company is the leading equipment and technology provider for purpose-built vessels used to build, install, and maintain offshore wind towers and turbines. While NOV's research and development includes efforts in land and offshore-based wind, solar power, hydrogen energy, geothermal power, and carbon capture and sequestration, the Company sees the most promise in development and commercialization of novel products and technologies to improve the efficiencies and economics of land and offshore-based wind, geothermal power generation, and carbon capture and sequestration (See "Energy Transition" below).

Employ a capital-light business model with the ability to quickly scale operations

NOV's manufacturing facilities require relatively low investment and maintenance expenses versus the sales they enable. NOV manufactures a diverse line of products and improves efficiency by shifting production runs to high-demand or lowest-cost facilities. The Company also benefits from a customer base requiring technically complex equipment for use in extreme environments. Using sophisticated tools to precisely place a wellbore several miles into the earth, and then physically cracking open reservoir rock using large volumes of highly abrasive fluids pumped at extremely high pressures, is incredibly rough on equipment, creating recurring sales opportunities for equipment replacement and aftermarket sales and service.

NOV's infrastructure leverages the energy industry's cyclical nature. As commodity prices rise, the industry typically enters an expansionary phase, and equipment orders increase. NOV is able to ramp up manufacturing capacity quickly to capture the up-cycle value while meeting customer demand. During down-cycles, the Company's focus is internal efficiency and technological advancement. NOV's continuous pursuit of cyclical technological initiatives enhances its ability to drive long-term customer and shareholder value. The Company also outsources non-critical machining operations with lower tolerance requirements during increased activity and brings the machining operations back into Company-owned facilities during down-cycles for lower cost and effective utilization.

Employ a conservative capital structure with ample liquidity to capitalize on volatility associated with the oil and gas industry

NOV maintains a conservative capital structure with an investment-grade credit rating and ample liquidity. The Company carefully manages its capital structure by continuously monitoring cash flow, capital spending, and debt capacity. Maintaining financial strength inspires confidence from customers who make large purchase commitments delivered over multi-year timeframes and who expect NOV to support their equipment with OEM aftermarket parts and services for decades to come. NOV's strong balance sheet provides flexibility to execute its strategy, including advancing technological offerings, through industry volatility and commodity price cycles. The Company intends to maintain a conservative approach to balance sheet management to preserve operational and strategic flexibility.

Energy Transition

As a leading independent global energy technology and equipment provider, NOV can be a key participant in the world's transition to a low-carbon future. While oil and gas will remain critical to many parts of the global economy, the transition to clean, carbon-neutral energy sources represents an enormous economic opportunity for organizations that can improve the economic competitiveness of renewable energy. The International Energy Agency estimates that approximately \$71 trillion, or \$3.4 trillion per year, must be spent by 2040 in order for global CO2 emissions to decline 50 percent as outlined in the Paris Agreement. NOV is working to develop proprietary solutions to improve project

execution, drive higher capital returns, and lower levelized costs of energy (“LCOE,” which is a measure of the average net present cost of electricity generation over a source’s lifetime) associated with renewable energy.

Fixed Offshore Wind

NOV has drawn on its expertise in oil and gas jack-up vessel design, robust aftermarket network, and strong reputation in marine equipment design to become the leading global equipment and design provider for offshore wind turbine installation vessels. NOV’s comprehensive offerings include designing and manufacturing critical jacking systems, cranes, and mooring equipment; developing and licensing vessel designs; working closely with shipyards to install and commission equipment on wind installation vessels; and aftermarket parts, service, and repair. The Company expects an upcoming growth period in the global offshore wind installation vessel market, driven primarily by the need for larger vessels required to support the installation of wind turbines with increasingly large rotor diameters, nacelle weights, and hub heights. The vessels required to install modern, heavier nacelles at higher hub heights are similar to those previously designed by NOV and are relatively consistent across global geographies. Additionally, as U.S. fixed offshore wind projects approach final permitting approval, the need for Jones Act-compliant wind installation vessels will become more urgent. As a result, the Company is well-positioned to capture additional orders associated with future newbuild wind installation vessels.

Floating Offshore Wind

The nascent floating offshore wind market presents one of the great renewable resource opportunities of the next decade. NOV is actively developing new products and technologies to support this industry alongside its legacy portfolio, which includes cranes, winches, mooring systems, cable-lay systems, ballasting systems, and chain connectors and tensioners. NOV has developed a patent-pending Tri-Floater semi-submersible floating foundation that requires less steel than competing offerings. NOV is also designing several proprietary lifting and handling tools for streamlined turbine component installation. Today, the floating offshore wind market sits in the pre-commercial development phase, with industry players focused on proofs of concept and mitigating execution risk. NOV is working to become a value-added partner capable of meaningfully reducing project execution risk by leveraging the Company’s broad and growing portfolio of relevant technology, extensive track record of successfully managing complex marine projects, relationships with global shipyards, and robust global supply chain accustomed to stringent quality and traceability.

Onshore Wind

NOV is developing technology to lower onshore wind’s LCOE by economically constructing increasingly tall wind towers. Higher hub heights allow turbines to reach stronger winds, significantly increasing energy capture, lowering energy cost, and expanding the regions where wind projects can be profitably developed. Higher hub heights are also required for larger, more efficient turbines. The combination of larger turbines and steadier, higher winds improves wind farm economics. Consequently, wind turbine size and tower height have been increasing steadily for several years. NOV’s core design and manufacturing competencies for large, industrial capital equipment, including cranes, lifting tools, and rotating machinery, uniquely position NOV to develop fit-for-purpose wind components and installation equipment to facilitate building onshore wind turbines at higher hub heights.

In 2019, NOV acquired a minority interest in Keystone Tower Systems (“KTS”), which has developed a patented tapered spiral-welding process that enables automated wind tower section production. The proprietary process significantly decreases tower section production times and reduces costs. Additionally, the process enables in-field manufacturing operations, which can reduce costs and eliminate many logistical limitations of transporting the larger-diameter sections necessary for tall tower developments. KTS’s first commercial line is currently under construction within NOV’s facility in Pampa, TX.

NOV is developing a fit-for-purpose onshore wind tower erection system. Constructing onshore wind towers currently requires large crawler cranes, which provide advantaged mobility at low and moderate hub heights but are significantly less efficient at high hub heights. NOV’s technology, built upon the intellectual property, control systems, and experience developed through mobile desert and arctic drilling rig design, uses a tower crane in conjunction with a

unique mobility system. This patent-pending combination creates a structurally-sound, mobile tower crane that is expected to significantly improve the safety, reliability, and efficiency of tall wind tower installation processes.

Geothermal

Today, many of NOV's oil and gas products are used for drilling geothermal wells which produce steam that turns surface-mounted turbines to generate electricity. NOV's top drives, blowout preventers, drill pipe, drill pipe inspection and coating, liner hangers, completion tools, drill bits, and full land rig packages have been a critical part of global geothermal development. Further, with geothermal power generation's recently renewed traction, NOV has developed new proprietary products that address many unique geothermal production challenges and is investigating certain novel geothermal energy forms that could expand the worldwide geothermal power generation market.

Carbon Capture and Sequestration

NOV is positioned to play a vital role in the growing carbon capture and sequestration industry. Technology from NOV's Wellstream Processing business enables CO₂-from-hydrocarbon separation, dehydration, and liquification, all vital parts of the carbon capture chain. In addition, the APL business's turret and mooring systems facilitate the development of offshore carbon re-injection sites.

Lowering the Carbon and Environmental Footprint of the Oil & Gas Industry

NOV is committed to providing products and services that economically reduce carbon intensity and deliver superior performance. The Company has pioneered numerous solutions for improving the industry's safety and environmental footprint, including NOV's closed-loop solids control and thermal desorption systems, dual-containment flowline technologies, solar pumping systems, and hydrocarbon leak detection systems, among others. NOV remains committed to reducing emissions and improving industry sustainability.

NOV's recently-introduced PowerBlade™ Kinetic Energy Recovery System is a regenerative braking technology that utilizes both flywheel energy and lithium-ion battery energy storage to significantly reduce fuel consumption and emissions associated with drilling and hoisting. The PowerBlade™ system captures and regenerates electrical energy that would have previously dissipated as heat when a drawworks, crane, or winch slows and stops. The PowerBlade™ system then returns this energy when needed.

NOV also recently introduced its Ideal eFrac™ fleet, delivering advanced well stimulation technology to dramatically reduce emissions and decrease ownership cost. The patent-pending Ideal eFrac™ system enhances wellsite safety by reducing complexity and removing personnel from hazardous environments. In addition to lower operating emissions and greater power density, the Ideal eFrac™ system is less disruptive to neighboring communities due to its reduced noise and smaller footprint, requiring 40 percent fewer truckloads for delivery.

Business Segment Overview

Wellbore Technologies provides the critical technologies, equipment, and services required to maximize customer oil and gas drilling efficiencies and economics. The segment contains the following business units:

- *Downhole* is a leading independent drilling and intervention equipment supplier with engineering teams, manufacturing facilities, supply hubs, and service centers situated in oil and gas activity regions with a constantly-evolving product portfolio that includes downhole drilling motors, SelectShift™ motors, agitator systems, and fishing and thru-tubing tools. Downhole's offerings enable significant efficiency increases in drilling, workover, and intervention.
- *Tuboscope* is a tubular coating and inspection leader, servicing drill-pipe and other oil country tubular goods ("OCTG") such as casing, production tubing, and line pipe. With an 80-year track record, Tuboscope offers a fully integrated inspection, coating, and repair process that enables critical OCTG customer confidence. In addition, Tuboscope offers artificial lift rod solutions, line-pipe connection systems, pipe thread protection systems, and RFID technology for complete drill-pipe lifecycle management.
- *Grant Prideco* is a leading premium drill-stem tubular manufacturer. With an integrated supply chain and an array of premium drill-pipe connections, Grant Prideco offers one-stop shopping. Grant Prideco leverages its expertise in metallurgy and connection technologies to offer an innovative product portfolio ranging from the simplest vertical land well to deepwater, extended-reach, high-pressure/high-temperature, and factory-drilling applications.
- *IntelliServ* is the only commercial telemetry network enabling real-time broadband data transmission for instantaneous two-way communication between the bottomhole assembly and surface control system utilizing wired drill-pipe. IntelliServ™ telemetry enables real-time information, real-time bottom-hole pressure monitoring, and significant rig-time savings as surveys, downlinks, slide orientations, and other data-driven activities are performed in seconds.
- *Directional Drilling Technologies* is a designer and manufacturer of downhole tools and technologies for directional drilling operations. Directional Drilling Technologies' measurement-while-drilling tools enable real-time wellbore location monitoring, and its logging-while-drilling tools provide real-time critical formation data. Its rotary-steerable-systems, including tools with closed-loop directional control, enable directional well trajectory drilling at high rates of penetration with limited surface interaction. As an independent supplier, Directional Drilling Technologies provides critical technologies required for efficient directional well drilling and enables service companies, drilling contractors, and E&P operators worldwide to deliver productive wells cost-effectively and reliably.
- *WellSite Services* is a leading provider of solids control and waste management equipment and services, advanced wellhead cellar systems, managed-pressure-drilling systems, and wellsite logistics solutions. WellSite Services manufactures, sells, and rents highly-engineered solids control equipment and provides field services that improve customers' bottom line by efficiently separating solids and reclaiming drilling fluids for reuse. After separating drill cuttings, WellSite Services provides waste management (both onsite and at centralized locations), including transport and storage. Additionally, WellSite Services provides water management solutions, and managed pressure drilling services, combined with a network of wellsite experts who support operators in bringing their wells in on-time and on-budget. WellSite Services offers diversified resources to help manage the full wellsite lifecycle from initial preparation and cellar installation to worksite abandonment and remediation, including generators, temperature-control equipment, and other wellsite accessories.
- *ReedHycalog* is a premier technical provider of performance-engineered drill bits and borehole enlargement products to help operators improve well construction efficiency and economics. The specialized product base centers on directly breaking the rock during rotary drilling operations, primarily through design, manufacturing, sales and rentals of high-quality, customized fixed cutter drill bits and the use of industry-leading cutter technology. The portfolio also includes roller cone drill bits, borehole

enlargement tools that excel in the most demanding applications, and geographically focused coring tools and services.

- *M/D Totco* is a leading independent oilfield digital solutions provider offering the full spectrum of sensors (both surface and downhole), data acquisition units, data aggregation, remote transmission, and analytics. Supported by a global field service infrastructure, M/D Totco's ability to deliver real-time data, edge analytics, and digital solutions around critical parameters improves customer wellsite safety and operational efficiency. Using IntelliServ high-speed wired drill-pipe telemetry services, M/D Totco harnesses NOV's unique ability to connect downhole tools with surface equipment to enable the world's first closed-loop drilling automation and optimization solutions, using heuristic functions and machine-learning capabilities to transform drilling performance.

Completion & Production Solutions provides critical technologies to optimize the well completion process and production phase of a well's lifecycle. Completion & Production Solutions business units include:

- *Intervention and Stimulation Equipment ("ISE")* designs and manufactures capital equipment and related consumables for oilfield pressure pumpers and coiled tubing, wireline, and well testing/flowback service companies. For hydraulic stimulation jobs, ISE's manufacturing and assembly includes value-add technologies and complex process equipment, such as hydration units, chemical additive systems, blenders, and control systems. In addition, the business unit produces essential consumables to support pressure pumping spreads, including centrifugal pumps, valves, seats, and flowline equipment. Along with providing surface well-testing and flowback equipment for ultimate production assurance, the unit designs and manufactures cement pumping, mixing, transport, and storage equipment for well construction. ISE is also a leading provider of coiled tubing units and strings, pressure control and nitrogen support equipment, injector heads, and snubbing units. The business unit designs and manufactures wireline products for electric and slickline applications, including critical pressure control equipment like wireline lubricators. With integrated control systems, including condition-based maintenance solutions in engineered equipment and other digital offerings, ISE extends equipment life through real-time analytics, prevents non-productive time, and provides remote operations monitoring. ISE supports all its equipment with comprehensive repair, recertification, and other services through an unmatched global aftermarket facilities network.
- *Fiber Glass Systems ("FGS")* leads the market in the design, manufacture, and delivery of high-end composite piping systems, pressure vessels, tanks, and structures engineered to solve both corrosion and weight challenges. With manufacturing facilities spanning five continents and a sales and distribution network covering 40 countries, FGS serves a wide array of applications. In addition to oil and gas products, including composite downhole tubing and casing, high-pressure line pipe, spoolable pipe, and tanks, FGS supplies the marine and offshore industry with piping systems, scrubbers, and structural components such as handrails and grating. FGS also supplies packaged, UL-certified fiberglass pipe and tank solutions to the fuel handling market, as well as supporting chemical, industrial, and mining applications with corrosion and abrasion-resistant piping systems, tanks, and structural components.
- *Process and Flow Technologies ("PFT")* provides integrated processing, production, and pumping equipment to energy producers. For the production space, PFT manufactures reciprocating, multistage, and progressive cavity pumps, as well as artificial lift support systems. For the midstream space, PFT manufactures closures and transfer pumps. For fluid processing, PFT designs and manufactures integrated systems that provide water treatment, separation, sand management, hydrate inhibition, and gas processing for use both on and offshore. Building on its processing equipment portfolio, PFT offers comprehensive floating production systems, including turret mooring and topside process modules that minimize execution risk and maximize operability and crew safety. PFT can partner with operators from concept to deployment or operate as the equipment provider to both end customers and engineering, procurement, and construction ("EPC") firms. PFT, along with alliance partners, offers complete technology, engineering, and project management to supply comprehensive topside solutions for floating production, storage, and offloading ("FPSO") vessel projects.
- *Subsea Production Systems ("SPS")* provides technical innovation to reduce cost and improve subsea infrastructure and customer productivity. The business unit manufactures flexible subsea pipe systems designed to operate worldwide in demanding offshore conditions. Flexible pipes are highly engineered, complex, helically wound structures composed of multiple unbonded steel and composite layers, allowing them to withstand the demanding pressures and tensile loads of deepwater production while remaining resistant to wave- and tidal-induced fatigue. SPS also provides an assortment of critical subsea production

equipment, such as water injection and tie-in connector systems, subsea storage units, and other related products.

- *XL Systems* (“XLS”) provides integral and weld-on connectors for oil and gas applications, including conductor strings, surface casing, and liners, with diameters ranging from 16 to 72 inches. XLS is the sole provider of a proprietary line of wedge thread connections on large-bore pipe. In addition, XLS supplies connector products with threads machined on high-strength forging material and then welded to the pipe.
- *Completion Tools* solves the most pressing needs of the global completions marketplace, including lowering well cost through operational efficiency maximization, significant water consumption reduction, and increased production and ultimate recovery. Completion Tools’ technologies include multistage frac products, such as its proprietary BPSTM (Burst Port System), VapR™ dissolvable frac plug, i-Frac CEM™ multistage frac sleeve, Voyager™ Open Hole frac sleeve, and Bullmastiff™ frac system, which incorporates sand-control capabilities. The breadth of these offerings provides customers with optimal solutions for their application. Completion Tools also provides well construction technologies, including liner hangers and real-time optimization solutions such as iCon™ RT.
- *Industrial Pumps and Mixers* is a leading provider of specialized, technology-driven progressive cavity pumps and mixers for moving high-viscosity liquids for a variety of attractive end markets with high failure cost. Products include progressive cavity pumps for sludge movement, fluid metering, and sanitation sold under the Moyno and Mono brands; and industrial and static mixers, homogenizers, mixing systems, impellers, and agitators sold under the Chemineer, Kenics, Greerco, and Prochem brands. Marketed under globally recognized brands known for quality and reliability and backed by more than 75 years of advanced fluid-handling experience, Industrial Pumps and Mixers serves a wide breadth of end markets, including food and beverage, water/wastewater, chemical, mineral processing, pulp & paper, pharmaceutical, and general industrial processes.
- *Pole Products* provides premium products to support connectivity, lighting, and power for municipal and residential applications, including 5G, smart-city infrastructure, roads and highways, and energy-grid modernization. The business unit is a national leading manufacturer of premium spun-cast concrete, tapered steel, and innovative fiberglass poles for diverse applications. Known for durability, aesthetic design, superior lead times, and differentiated field services, Pole Products provides bundled installed products to the telecom, utility, and transportation infrastructure markets.

Rig Technologies is the global leader in the engineering, manufacturing, and support of advanced drilling equipment packages and related capital equipment for oil and gas wells. The segment also designs, builds, installs, and supports renewable energy equipment and technology, with a focus on wind and solar. Rig Technologies operates two business units:

- *Rig Equipment* designs, manufactures, and sells land rigs, complete offshore drilling packages, and rig components designed to mechanize and automate complex drilling rig processes, including the NOVOS™ automation control system and ATOM™ RTX Robotics solutions. Rig Equipment’s portfolio includes designs that changed the way rigs are operated, such as the TDS top drive drilling system and automated roughneck. The product portfolio has evolved with market needs and includes solutions to reduce energy consumption and enable energy regeneration, resulting in reduced drilling environmental impact. The business unit also provides comprehensive aftermarket products and services to maximize rig fleet drilling uptime and reduce total cost of ownership through big-data analytics, condition monitoring, and digital solutions like TrackerVision™ and eHawk™ that enable efficient remote support. Aftermarket offerings include upgrades of existing equipment and systems, spare parts, repair, and rentals, as well as comprehensive remote equipment monitoring, technical support, field service, and customer training through an extensive aftermarket facilities network strategically located in major drilling areas around the world.
- *Marine Construction* designs, engineers, and manufactures heavy-lift cranes; a large range of knuckle-boom and lattice-boom cranes, including active heave options; mooring, anchor, and deck-handling machinery; a full range of jacking systems both for drilling rigs and wind turbine installation jack-ups; and solutions for installing offshore wind towers and turbines, pipelay, and construction vessel systems. Within Marine Construction, GustoMSC provides design solutions for drilling jack-ups and floaters, wind turbine installation jack-ups, and floating offshore wind solutions like the TriFloater. Marine Construction

serves the oil and gas industry as well as wind energy and other marine-based end markets. This business unit also provides aftermarket support, including upgrades of existing equipment, spare parts, repair and field services.

See Note 16 to the Consolidated Financial Statements for financial information by segment and a geographical revenue and long-lived asset breakout. We have also included a glossary of oilfield terms at the end of Item 1. “Business” of this Annual Report.

Overview of Oil and Gas Well-Construction Processes

The well-construction process starts with an oil and gas operator and its contractors designating a suitable drilling site and placing a drilling rig at the location. The rig’s crew assembles the drill stem, which consists of drillpipe joints, specialized drilling components known as downhole tools, and a drill bit at the end. Modern rigs typically power the drill bit through a drilling motor, which is attached to the bottom of the drill stem and provides rotational force directly to the bit, or a top drive, a device suspended from the derrick that turns the entire drill stem. The evolution of drilling motors and top drives has facilitated operators’ abilities to drill directionally and horizontally as opposed to being limited to the traditional vertical trajectory. The Company sells and rents drilling motors, agitators, drill bits, downhole tools and drill pipe through Wellbore Technologies, and sells top drives through Rig Technologies.

Heavy drilling fluids, or “drilling muds,” are pumped down the drill stem and forced out through jets in the bit. The drilling mud returns to the surface through the space between the borehole wall and the drill stem, carrying with it the rock cuttings drilled out by the bit. The cuttings are removed from the mud by a solids control system (which can include shakers, centrifuges, and other specialized equipment) and disposed of in an environmentally sound manner. The solids control system permits the mud, which is often comprised of expensive compounds, to be continuously reused and re-circulated back into the hole. Rig Technologies sells the large “mud pumps” that are used to pump drilling mud through the drill stem, down, and back up the hole. Wellbore Technologies sells and rents solids control equipment and provides solids control, waste management and drilling fluids services.

Many operators internally coat the drill stem to improve its hydraulic efficiency and protect it from the corrosive fluids sometimes encountered during drilling; have hard-facing alloys applied to drillpipe joints, collars, and other components to protect tool joints and casing against wear; and inspect and assess the integrity of the drillpipe from time to time. Wellbore Technologies manufactures and sells drillpipe and provides coating, “hardfacing,” and drillpipe inspection and repair. As hole depth increases, additional joints of drillpipe are continuously added to the drill stem. When the bit becomes dull or the equipment at the bottom of the drill stem – including the drilling motors – otherwise requires servicing, the entire drill stem is pulled out of the hole and disassembled by disconnecting the joints of drillpipe. These are set aside or “racked,” the old bit is replaced or service is performed, and the drill stem is reassembled and lowered back into the hole (a process called “tripping”). During drilling and tripping operations, joints of drillpipe must be screwed together and tightened (“made up”), and loosened and unscrewed (“spun out”), a process that can create a considerable amount of stress on the pipe connections while also being quite time consuming. Rig Technologies provides drilling equipment to manipulate and maneuver the drillpipe in an efficient and safe manner, and Wellbore Technologies manufactures premium connections that are designed to reduce failure downhole and improve the rate of connection on the rig floor. When the hole has reached a specified depth, all the drillpipe is pulled out of the hole, and larger-diameter pipe known as casing is lowered into the hole and permanently cemented in place in order to protect against collapse and contamination of the hole. The casing is typically inspected before it is lowered into the hole, another service provided by Wellbore Technologies. Hole openers from Wellbore Technologies, which mount above the drill bits in the drill stem, open the tolerance of the hole to allow for easier and faster casing installation. Completion & Production Solutions manufactures cement mixing and pumping equipment that is used to cement the casing in place. The rig’s hoisting system raises and lowers the drill stem while drilling or tripping, and lowers casing into the wellbore. A conventional hoisting system is a block-and-tackle mechanism that works within the drilling rig’s derrick. The mechanism is lifted by a series of pulleys that are attached to the drawworks at the base of the derrick. Rig Technologies sells and installs drawworks and pipe hoisting-systems.

During the course of normal drilling operations, the drill stem passes through different geological formations that exhibit varying pressure characteristics. If this pressure is not contained, oil, gas, and/or water would flow out of these formations to the surface. Containing reservoir pressures is accomplished primarily by the circulation of heavy drilling muds and secondarily by blowout preventers (“BOPs”), should the mud prove inadequate. Drilling muds are carefully designed to exhibit certain qualities that optimize the drilling process. In addition to containing formation pressure, they must provide power to the drilling motor; carry drilled solids to the surface; protect the drilled formations from

being damaged; and cool the drill bit. Achieving these objectives often requires a formulation specific to a given well, requires a high level of cleanliness for better bottomhole assembly, and can involve the use of expensive chemicals as well as natural materials, such as certain types of clay. The fluid itself is often oil or more expensive synthetic mud. Given the cost, it is highly desirable to reuse as much of the drilling mud as possible. Solids control equipment such as shale shakers, centrifuges, cuttings dryers, and mud cleaners help accomplish this objective. Wellbore Technologies provides drilling fluids and rents, sells, operates, and services solids control equipment. Rig Technologies manufactures pumps that power the flow of the mud and fluid downhole and back to the surface. Drilling muds are formulated based on expected drilling conditions. However, as the hole is drilled, the drill stem may encounter a high-pressure zone where the mud density is inadequate to maintain sufficient pressure. Should efforts to “weight up” the mud to contain such a pressure kick fail, a blowout could result, whereby reservoir fluids would flow uncontrolled into the well. A series of BOPs are positioned at the top of the well and, when activated, form tight seals that prevent the escape of fluids to the surface. Conventional BOPs prevent normal rig operations when closed so the BOPs are activated only if drilling mud and normal well control procedures cannot safely contain the pressure. Rig Technologies engineers and manufactures BOPs.

The operations of the rig and the condition of the drilling mud are closely monitored by various sensors, which measure operating parameters such as the weight on the rig’s hook, the incidence of pressure kicks, the operation of the drilling mud pumps, weight on bit, etc. Wellbore Technologies sells and rents drilling rig instrumentation packages that perform these monitoring functions as well as additional sensors that continuously collect downhole data that can be transmitted back to the surface via wired drill pipe. Wellbore Technologies’ also offers drilling optimization and automation software and services that utilize this downhole data to maximize drilling performance by mitigating vibrations, dynamic and impact loading, and stick-slip, which ensures longer bit runs, and reduces the number of necessary trips.

During drilling operations, the drilling rig and related equipment and tools are subject to severe stresses, pressures, and temperatures, as well as a corrosive environment, and require regular repair and maintenance. Rig Technologies supplies spare parts and can dispatch field service engineers with the expertise to quickly repair and maintain equipment, minimizing down time.

Once a well has been drilled, cased, and cemented, and the operator determines hydrocarbons are present in commercial quantities, the well is then completed, and sometimes stimulated. After the casing is cemented in place, the well undergoes one of several completion processes to open the bottom of the wellbore and allow hydrocarbons to flow from the reservoir and up the well to the surface. The most commonly used technique is known as perforation. The perforating process entails lowering a string of shaped charges to the desired depth in the well using an electric wireline unit and firing the charges to perforate the casing or liner. Wireline units are also used to perform logging operations and other intervention services. At this point, the operator may decide, based on well design and flow rate, to further enhance production by stimulating the well. Unconventional wells almost always require stimulation through multi-stage hydraulic fracturing, a process by which a fluid or slurry is pumped down the well by large pumping units. This causes the underground formation to crack or fracture, opening up space for hydrocarbons to flow more freely out of tight rock formations. A proppant is suspended in the fluid and lodges in the cracks, propping them open and allowing hydrocarbons to flow after the fluid is gone. A coiled tubing unit is often used to drill out bridge plugs that isolate the many stages needed to stimulate a horizontal well. A coiled tubing unit utilizes a large continuous length of steel tubing to enter and traverse long laterals and perform completion and well remediation operations. As drilling laterals have lengthened in recent years, many operators are electing to use larger high-specification well service rigs to assist in several phases of the completion phase by conveying tools downhole and drilling out completion plugs. Workover rigs are similar to drilling rigs in their capabilities to handle tubing but are usually smaller and somewhat less sophisticated. Completion & Production Solutions provides the essential equipment necessary for the entirety of the completion and stimulation process, designing and manufacturing coiled tubing units, wireline units, pressure pumping equipment, completion tools, snubbing units, nitrogen units, and treating iron. In addition, the well completion process creates a large amount of wear and tear on the equipment used, which creates healthy demand for Completion & Production Solutions’ aftermarket services. The use of coiled tubing and wireline equipment typically requires the use of a BOP to ensure safety during operations. Completion & Production Solutions manufactures this well control equipment. Due to the corrosive nature of many produced fluids, production tubing is often inspected and coated, services offered by Wellbore Technologies. Increasingly, operators choose to use corrosion-resistant composite materials or alloys in the process, which are also sold by Completion & Production Solutions.

Once the well has been stimulated, it is usually ready to be capped with a production wellhead and linked up to a gathering system where it can begin producing and generating cash flow for the operator. This process is significantly more involved offshore, where pipes are often required to reach thousands of feet from the wellhead back to the surface, contending with tides, debris, and weather. The development of flexible pipe solved many of the issues associated with linking offshore wells back to their respective FPSOs, which serve as gathering hubs, sometimes in some of the most remote areas of the world. Completion & Production Solutions manufactures flexible subsea pipe in addition to offering turret mooring systems and topside process modules for FPSOs.

Natural decline rates set in as a well ages, and workover procedures and other services may be necessary to extend its life and increase its production rate. Over time, downhole equipment, casing, or tubing may need to be serviced or replaced. When producing wells require anything from routine maintenance to major modifications and repair, a well servicing rig is typically needed. Workover rigs are used to disassemble the wellhead, tubing and other completion components of an existing well in order to stimulate or remediate the well. As a well continues to mature, its natural reservoir pressure may no longer be enough to force fluids to the surface. Artificial lift equipment is then typically installed, which adds energy to the fluid column in a wellbore using one of several types of pumps. In addition to reduced pressure, the water cut of a well's production tends to increase as the well ages, which typically requires the addition of water treatment and separation equipment. The Company offers a comprehensive range of workover rigs through Rig Technologies. Tubing and sucker rods removed from a well during a well remediation operation are often inspected to determine their suitability to be reused in the well, a service Wellbore Technologies provides. Completion & Production Solutions offers several types of artificial lift and related support systems as well as integrated systems that provide water treatment, separation, hydrate inhibition, and gas processing.

Markets and Competition

The Company's customers are predominantly service companies, oil and gas companies, and shipyards. Products within Wellbore Technologies and Completion & Production Solutions are sold and rented worldwide through NOV's sales force and through commissioned representatives. Substantially all of Rig Technologies' capital equipment and spare parts sales, and a large portion of smaller pumps and parts sales, are made through NOV's direct sales force and distribution service centers. Sales to foreign oil companies are often made with or through representative arrangements.

The Company's competition consists primarily of publicly traded oilfield service and equipment companies and smaller independent equipment manufacturers in the oil and gas, industrial, and renewable energy equipment markets.

The Company's foreign operations, which include significant operations in the Middle East, Africa and Latin America, Russia, the Far East, Canada and Europe are subject to the risks normally associated with conducting business in foreign countries, including foreign currency exchange risks and uncertain political and economic environments, which may limit or disrupt markets, restrict the movement of funds or result in the deprivation of contract rights or the taking of property without fair compensation. Government-owned petroleum companies located in some of the countries in which the Company operates have adopted policies (or are subject to governmental policies) giving preference to the purchase of goods and services from companies that are majority-owned by local nationals. As a result of such policies, the Company relies on joint ventures, license arrangements, and other business combinations with local nationals in these countries. See Note 16 to the Consolidated Financial Statements for information regarding geographic revenue information.

Influence of Oil and Gas Activity Levels on the Company's Business

The oil and gas industry has historically experienced significant volatility. Demand for the Company's products and services depends primarily upon the general level of activity in the oil and gas industry worldwide. Oil and gas activity is in turn heavily influenced by, among other factors, oil and gas prices worldwide. High levels of drilling and well remediation generally spurs demand for the Company's products and services. Additionally, high levels of oil and gas activity increase cash flows available for oil and gas companies, drilling contractors, oilfield service companies, and manufacturers of OCTG to invest in equipment that the Company sells.

See additional discussion on the current worldwide economic environment and related oil and gas activity levels in Item 1A. "Risk Factors" and Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations."

Seasonal Nature of the Company's Business

Historically, activity levels of some of the Company's segments have followed seasonal trends to some degree. Extremely harsh winter weather can reduce oilfield operations in far northern or high-altitude locations, including parts of Colorado, Canada, Russia and China, and the annual thaw (or "breakup") in Canada makes some unimproved roads inaccessible to heavy equipment during part of each second quarter. Both situations temporarily reduce demand for the Company's products and services in the effected geographic area, although revenues generally recover once conditions improve. Fluctuations in customer's activity levels caused by national or customary holiday seasons and annual budgetary cycles can also affect their spending levels with the Company, leading to both temporary local decreases and increases in sales. Over the past few years, the Company has seen a more pronounced level of spending during the fourth quarter, and a decline in the first quarter, in certain of its businesses, which it believes is related to annual budgetary cycles. While the Company anticipates that the seasonal and other trends described above may continue, there can be no guarantee that spending by the Company's customers will continue to follow patterns seen in the past.

Research and New Product Development and Intellectual Property

The Company believes that it has been a leader in the development of new technology and equipment to enhance the safety and productivity of drilling and well servicing processes and that its sales and earnings have been dependent, in part, upon the successful introduction of new or improved products. It also invests in new technologies related to its non-oil and gas business as well as renewable energy-related technologies. Through its internal development programs and certain acquisitions, the Company has assembled an extensive array of technologies protected by a substantial number of trademarks, for both goods and services, patents, trade secrets, and other proprietary rights.

As of December 31, 2020, the Company held a substantial number of granted patents and pending patent applications worldwide, including U.S. patents and U.S. patent applications as well as patents and patent applications in a variety of other countries. Expiration dates of such patents range from 2021 to 2040. Additionally, the Company maintains a substantial number of trademarks for both goods and services and maintains a number of trade secrets.

Although the Company believes that this intellectual property has value, competitive products with different designs have been successfully developed and marketed by others. The Company considers the quality and timely delivery of its products, the service it provides to its customers, and the technical knowledge and skills of its personnel to be as important as its intellectual property in its ability to compete. While the Company stresses the importance of its research and development programs, the technical challenges and market uncertainties associated with the development and successful introduction of new products are such that there can be no assurance that the Company will realize future revenue from new products.

Manufacturing and Service Locations

The manufacturing processes for the Company's products generally consist of machining, welding and fabrication, heat treating, assembly of manufactured and purchased components, and testing. Most equipment is manufactured primarily from alloy steel. The availability and price of alloy steel castings, forgings, purchased components, and bar stock is critical to the production and timing of shipments.

Wellbore Technologies designs, manufactures, rents, and sells a variety of equipment and technologies used to perform drilling operations, and offers services that optimize their performance, including: solids control and waste management equipment and services, drilling fluids, premium drillpipe, wired pipe, drilling optimization services, tubular inspection and coating services, instrumentation, downhole tools, and drill bits. Primary facilities are located in Houston, Conroe, Navasota, and Cedar Park, Texas; Veracruz, Mexico; and Dubai, UAE.

Completion & Production Solutions designs, manufactures, and integrates technologies for well completions, oil and gas production, and industrial markets. This includes equipment and technologies needed for hydraulic fracture stimulation, including pressure pumping trucks, blenders, sanders, hydration units, injection units, flowline, and manifolds; well intervention, including coiled tubing units, coiled tubing, and wireline units and tools; cementing products for pumping, mixing, transport, and storage; onshore production, including fluid processing, composite pipe, surface transfer and progressive cavity pumps, and artificial lift systems; and offshore production, including integrated production systems and subsea production technologies. Primary facilities are located in Houston, and Fort Worth, Texas; Tulsa, Oklahoma; Senai, Malaysia; Qingdao, Shandong, China; Kalundborg, Denmark; Superporto du Acu,

Brazil; Manchester, England; Nisku, Canada; Dammam, Saudi Arabia; Jiangyan, China; and Aberdeenshire, Scotland, UK.

Rig Technologies provides drilling rig components, complete land drilling rigs, and offshore drilling equipment packages. Primary manufacturing and service facilities are located in Houston, Texas; Mexicali, Mexico; Dubai, UAE; Pune, India; Stavanger, Norway; Kristiansand, Norway; New Iberia, Louisiana; Port Elizabeth, South Africa; Macae, Brazil; Ulsan Korea and Singapore.

Raw Materials

The Company believes that materials and components used in its operations are generally available from multiple sources. The prices paid by the Company for its raw materials may be affected by, among other things, energy, steel, and other commodity prices; tariffs and duties on imported materials; and foreign currency exchange rates. The Company has experienced rising, declining, and stable prices for milled steel and standard grades in line with broader economic activity and has generally seen specialty alloy prices continue to rise, driven primarily by escalation in the price of the alloying agents. The Company has generally been successful in its effort to mitigate the financial impact of higher raw materials costs on its operations by applying surcharges to, and adjusting prices on, the products it sells. Higher prices and lower availability of steel and other raw materials the Company uses in its business may adversely impact future periods.

Backlog

The Company monitors its backlog of orders to guide its planning. Backlog includes orders which typically require more than three months to manufacture and deliver.

Backlog measurements are made on the basis of written orders that are firm but may be defaulted upon by the customer in some instances. Most require reimbursement to the Company for costs incurred in such an event. There can be no assurance that the backlog amounts will ultimately be realized as revenue, or that the Company will earn a profit on backlog work. Backlog for Completion & Production Solutions at December 31, 2020, 2019 and 2018 was \$0.7 billion, \$1.3 billion and \$0.9 billion, respectively. Backlog for Rig Technologies at December 31, 2020, 2019 and 2018, was \$2.7 billion, \$3.0 billion and \$3.1 billion, respectively.

Human Capital

NOV's 27,631 global, diverse employees use their skill and expertise to provide the products and services that help our customers operate safely, efficiently, sustainably, and competitively. NOV's team designs and manufactures a broad array of equipment and technology, from some of the heaviest, largest and most complex mobile machines on earth (on and offshore drilling rigs, wind turbine installation ships, and FPSOs) to very small precision sensors and measuring devices.

NOV's employee base includes:

- *Inventors, designers, scientists and engineers (including mechanical, electrical, chemical, hydraulic, materials, computer, software, data analytics, and other disciplines)* who design and improve the equipment, electronics, software, services and process that bring value to NOV's customers.
- *Technical sales, marketing and training professionals* who educate customers, the industry, and our own organization about NOV's many products, services and unique capabilities.
- *Supply chain, logistics, warehousing, and quality testing professionals* who ensure our factories, workshops, repair centers and field technicians have the right materials and tools to do their jobs efficiently.
- *Production and service planners and schedulers, project managers, and process design and Quality Health Safety and Environmental professionals* who plan, manage and monitor the activities of our workforce to ensure high-quality, efficient, safe, and environmentally compliant operations.
- *Machinists, metal fabricators, welders, assemblers, pipe fitters, riggers, electronics technicians, system integrators, composite material fabricators, paint and industrial coatings specialists, and other skilled trade professionals* who use a wide variety of industrial processes, tools, and techniques to transform raw materials and purchased components into the many products NOV sells.

- *Field service engineers, mechanics, and technicians* who maintain, service, repair, and upgrade NOV equipment and, in some cases, assist customers with its operation.
- *Business leaders and managers* who create business strategies and targets, assess goals and priorities, and allocate resources to ensure NOV's employees have the tools they need to get the job done and further build the Company's competitive advantages.
- *Support function professionals, including: Information Technology, Human Resources, Legal, Compliance, Clerical, and Accounting and Finance* who support operations to keep the business infrastructure and administrative burdens flowing.

Thirty-five percent of NOV employees work in the United States, 25% in Europe, 13% in the Asia Pacific region, 12% in Latin America, 9% in the Middle East and Africa, and 3% in each of Canada and China. The Company's 573 physical locations include various size manufacturing plants, research facilities, machine shops, office buildings, warehouses and distribution centers where between 20 to 1,100 people work and repair shops, rental tool bases, sales offices and other small locations where between 5 to 200 people work. Many NOV employees travel to work at customer locations, including onshore and offshore drilling sites, shipyards, and other industrial locations where equipment needs installation, commissioning, service or repair, or where customers need training or technical support.

NOV's success depends on these dedicated, skilled hardworking employees. The Company strongly believes that safeguarding and supporting the health, safety, diversity, respect, skills, career satisfaction and wellbeing of NOV's employees are critical to the success of the business. The Company's Human Resources and Health Safety and Environmental organizations provide policies, oversight, monitoring, resources, training, and assistance companywide that are designed to foster a culture that embraces this belief.

Safety

Protecting the health and safety of all stakeholders is a core value. NOV maintains comprehensive monitoring and tracking of reportable injuries, reviewed each quarter by our operating Segment Presidents with the CEO, CFO, and Chief HSE Officer (including significant injuries, root cause analysis, and remediation measures). Successful safety programs and campaigns are also shared across the Company's operations, including:

- Stop Work Authority – all NOV employees have the authority, responsibility, and duty to stop an unsafe act, practice, or job.
- Life Saving Rules – standardized rules aligning NOV with industry partners to reduce the risk of serious injury or death associated with critical hazards in the workplace.
- Fresh-Eyes – program coordinating safety walk-throughs, observations, and improvements at peer NOV facilities.
- Safety stand downs – pausing normal operations for general safety meetings or to address a specific risk.

Health and wellbeing

The Company offers locally competitive health benefits, paid holidays and time off, and retirement benefits to our employees. In the US this includes health, vision and dental insurance, life insurance, disability insurance, a 401(k)-retirement savings plan, an employee assistance program, and a wellness program.

During the COVID-19 pandemic NOV has implemented programs tailored to each location that may include, among other things, working from home, virtual meetings, social distancing, masking, contact tracing and quarantining, facility and machine sanitizing, staggered work shifts, and staggered workdays.

Diversity and inclusion

NOV is committed to maintaining a diverse workforce, individual inclusion, and equal opportunities. The Company believes an employee base with different education, training and life experiences (gender, age, religion, race, ethnicity, cultural background, sexual orientation, language, education, abilities, perspectives, etc.) lead to more innovative and creative business solutions, more informed decision-making, greater employee engagement, and better retention and recruitment of top talent.

In support of this commitment, NOV has communicated a Diversity and Inclusion Statement from the CEO to our employees and has implemented training programs covering the Company's *Code of Conduct and Business Ethics*, *Unconscious Bias*, and *Harassment in the Workplace*.

Across NOV's global workforce, women make up 16% of all employees, 23% of salaried employees, 20% of the C-Suite and hold 22% of the Company's Board of Directors seats.

Career satisfaction and skills

NOV tracks and monitors data on the employee experience including hiring, turnover, and promotion trends. The Company also obtains employee feedback through 'pulse' surveys which measure employee satisfaction across several areas. Human resources managers and business managers across the Company review this information to identify areas for improvement and create remediation strategies.

The Company invests in opportunities for employee education, growth, and development, providing comprehensive training opportunities in technical, managerial, and soft skills. Some programs include: *Powering Excellence* designed for current and potential business leaders, *Supervisor Training and Resources (STAR)* and *Leading Self and Others* designed for new managers, as well as many other courses through the Company's dedicated Technical Training Centers based in Houston, Singapore, UAE, Norway, UK, and South America.

Available Information

The Company's principal executive offices are located at 7909 Parkwood Circle Drive, Houston, Texas 77036. Its telephone number is (713) 346-7500. Further information about the Company's products and services can be found on its website at: www.nov.com. The Company's common stock is traded on the New York Stock Exchange under the symbol "NOV". The Company's annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and all related amendments are available free of charge on the Investor Relations portion of the Company's website, www.nov.com/investor, as soon as reasonably practicable after such material is electronically filed with, or furnished to, the Securities and Exchange Commission ("SEC"). The Company's Code of Ethics is also posted on its website.

ITEM 1A. RISK FACTORS

You should carefully consider the risks described below, in addition to other information contained or incorporated by reference herein. Realization of any of the following risks could have a material adverse effect on our business, financial condition, cash flows and results of operations.

Industry Environment and Operations Related

We are dependent upon the level of activity in the oil and gas industry, which is volatile and has caused, and may cause future, fluctuations in our operating results.

The oil and gas industry historically has experienced significant volatility. Demand for our products and services depends primarily upon the number of oil rigs in operation, the number of oil and gas wells being drilled, the depth and drilling conditions of these wells, the volume of production, the number of well completions, capital expenditures of other oilfield service companies and the level of workover activity. Drilling and workover activity can fluctuate significantly in a short period, particularly in the United States and Canada. The willingness of oil and gas operators to make capital expenditures to explore for and produce oil and natural gas and the willingness of oilfield service companies to invest in capital equipment will continue to be influenced by numerous factors over which we have no control, including the:

- current and anticipated future prices for oil and natural gas;
- volatility of prices for oil and natural gas;
- ability or willingness of the members of the Organization of Petroleum Exporting Countries (“OPEC”) and other countries, such as Russia, to maintain or influence price stability through voluntary production limits;
- sanctions and other restrictions placed on certain oil producing countries, such as Russia, Iran, and Venezuela;
- level of production by non-OPEC countries including production from U.S. shale plays;
- level of excess production capacity;
- cost of exploring for and producing oil and gas;
- level of drilling activity and drilling rig dayrates;
- worldwide economic activity and associated demand for oil and gas;
- public health crises and other catastrophic events, such as the COVID-19 pandemic;
- availability and access to potential hydrocarbon resources;
- governmental political requirements, regulation and energy policies;
- fluctuations in political conditions in the United States and abroad;
- currency exchange rate fluctuations and devaluations;
- development of alternate energy sources; and,
- environmental regulations.

Expectations for future oil and gas prices cause many shifts in the strategies and expenditure levels of oil and gas companies, drilling contractors, and other service companies, particularly with respect to decisions to purchase major capital equipment of the type we manufacture. Oil and gas prices, which are determined by the marketplace, may remain below a range that is acceptable to certain of our customers, which could continue the reduced demand for our products and have a material adverse effect on our financial condition, results of operations and cash flows.

There are risks associated with certain contracts for our equipment.

As of December 31, 2020, we had a backlog of capital equipment to be manufactured, assembled, tested and delivered by Completion & Production Solutions and Rig Technologies in the amount of \$0.7 billion and \$2.7 billion, respectively. The following factors, in addition to others not listed, could reduce our margins on these contracts, adversely impact completion of these contracts, adversely affect our position in the market or subject us to contractual penalties:

- financial challenges for consumers of our capital equipment;
- credit market conditions for consumers of our capital equipment;
- our failure to adequately estimate costs for making this equipment;
- our inability to deliver equipment that meets contracted technical requirements;
- our inability to maintain our quality standards during the design and manufacturing process;
- our inability to secure parts made by third party vendors at reasonable costs and within required timeframes;
- unexpected increases in the costs of raw materials;
- our inability to manage unexpected delays due to weather, shipyard access, labor shortages or other factors beyond our control;
- the imposition of tariffs or duties between countries, which could materially affect our global supply chain. For example, section 232 tariffs on steel may increase our costs, reduce margins or otherwise adversely affect the Company; and,
- export sanctions, controls or other trade restrictions, which could affect our ability to manufacture, sell, or receive payment for our equipment and/or services.

The Company's existing contracts for rig and production equipment generally carry significant down payment and progress billing terms favorable to the ultimate completion of these projects and the majority do not allow customers to cancel projects for convenience. However, unfavorable market conditions or financial difficulties experienced by our customers may result in cancellation of contracts or the delay or abandonment of projects. Any such developments could have a material adverse effect on our operating results and financial condition.

Competition in our industry, including the introduction of new products and technologies by our competitors, as well as the expiration of the intellectual property rights protecting our products and technologies, could ultimately lead to lower revenue and earnings.

The oilfield products and services industry is highly competitive. We compete with national, regional and foreign competitors in each of our current major product lines. Certain of these competitors may have greater financial, technical, manufacturing and marketing resources than us, and may be in a better competitive position. The following can each affect our revenue and earnings:

- price changes;
- improvements in the availability and delivery of products and services by our competitors;
- the introduction of new products and technologies by our competitors; and,
- the expiration of intellectual property rights protecting our products and technologies.

We are a leader in the development of new technology and equipment to enhance the safety and productivity of drilling and well servicing processes. If we are unable to maintain our technology leadership position, it could adversely affect our competitive advantage for certain products and services. Our revenues and operating results have been dependent, in part, upon the successful introduction of new or improved products. Through our internal development programs and acquisitions, we have assembled an array of technologies protected by a substantial number of trade and service marks, patents, trade secrets, and other proprietary rights, which expire after a prescribed duration, some at varying times in the near future. The expiration of these rights could have a material adverse effect on our operating results.

Furthermore, while the Company stresses the importance of its research and development programs, the technical challenges and market uncertainties associated with the development and successful introduction of new products are such that there can be no assurance that the Company will realize future revenue from new products.

The tools, techniques, methodologies, programs and components we use to provide our services may infringe upon the intellectual property rights of others. Infringement claims generally result in significant legal and other costs and may distract management from running our core business. Royalty payments under licenses from third parties, if available, would increase our costs. Additionally, developing non-infringing technologies would increase our costs. If a license were not available, we might not be able to continue providing a particular service or product, which could adversely affect our financial condition, results of operations and cash flows.

In addition, certain foreign jurisdictions and government-owned petroleum companies located in some of the countries in which we operate have adopted policies or regulations which may give local nationals in these countries competitive advantages. Actions taken by our competitors and changes in local policies, preferences or regulations could impact our ability to compete in certain markets and adversely affect our financial results.

A significant portion of our revenue is derived from our non-United States operations, which exposes us to risks inherent in doing business in each of the 61 countries in which we operate.

Approximately 73% of our revenues in 2020 were derived from operations outside the United States (based on revenue destination). Our foreign operations include significant operations in every oil producing region in the world. Our revenues and operations are subject to the risks normally associated with conducting business in foreign countries, including:

- uncertain political, social and economic environments;
- social unrest, acts of terrorism, war and other armed conflict;
- public health crises and other catastrophic events, such as the coronavirus outbreak at the beginning of 2020;
- trade and economic sanctions, export controls, and other restrictions imposed by the United States, European Union or other countries;
- restrictions under the United States Foreign Corrupt Practices Act (“FCPA”) or similar legislation, as well as foreign anti-bribery and anti-corruption laws;
- confiscatory taxation, tax duties, complex and everchanging tax regimes or other adverse tax policies;
- exposure to expropriation of our assets and other actions by foreign governments;
- deprivation of contract rights;
- restrictions on the repatriation of income or capital;
- inflation; and,
- currency exchange rate fluctuations and devaluations.

The COVID-19 pandemic and related economic repercussions have had, and are expected to continue to have, a significant impact on our business, and depending on the duration of the pandemic and its effect on the oil and gas industry, could have a material adverse effect on our business, liquidity, consolidated results of operations and consolidated financial condition.

As a result of the COVID-19 pandemic, the Company may be exposed to additional liabilities and risks. The COVID-19 pandemic has resulted in unprecedented governmental actions ordering citizens in the United States and countries around the world to “shelter in place,” closing borders and issuing “stay at home orders,” which curtail travel and commerce. In the United States alone, over 26 million have filed for unemployment benefits during the sharp decline in economic activity resulting from governmental orders.

In 2020, oil demand significantly deteriorated as a result of the virus outbreak and corresponding preventative measures taken around the world to mitigate the spread of the virus. Also in early 2020 aggressive increases in

production of oil by Saudi Arabia and Russia created a significant surplus in the supply of oil. Physical markets became distressed as spot prices were negatively impacted by a lack of available storage capacity. The COVID-19 virus continued to spread during 2020, extending depressed demand, uncertainty and additional spending reductions by the entire oil and gas industry as U.S. rig count fell to its lowest level since 1940 in August despite oil prices beginning to stabilize.

The forced shutdown of economic activity has directly affected our business and has exacerbated the potential negative impact from many of the risks described in our Form 10-K for the year ended December 31, 2019, including those relating to our customers' capital spending and sharply reduced oil and natural gas prices. Demand for our products and services declined as our customers continued to revise their capital budgets downwards and swiftly adjusted their operations in response to lower commodity prices.

The nature, scale, and scope of the above-described events combined with the uncertain duration and extent of governmental actions prevent us from identifying all potential risks to our business. We believe that the well-known impacts described above, and other potential impacts include, but are not limited to, the following:

- Disruption to our supply chain for materials essential to our business, including restrictions on importing and exporting products;
- Customers may attempt to cancel or delay projects or may attempt to invoke force majeure clauses in certain contracts resulting in a decreased or delayed demand for our products and services;
- Customers may also seek to delay payments, may default on payment obligations and/or seek bankruptcy protection that could delay or prevent collections of certain accounts receivable;
- A credit rating downgrade of our corporate debt and potentially higher borrowing costs in the future;
- A need to preserve liquidity;
- Reduction of our global workforce to adjust to market conditions, including severance payments, retention issues, and an inability to hire employees when market conditions improve;
- Liabilities resulting from operational delays due to decreased productivity resulting from stay-at-home orders affecting its work force or facility closures resulting from the COVID-19 pandemic;
- Liabilities resulting from an inability to perform services due to limited manpower availability or an inability to travel to perform the services;
- Other contractual or other legal claims from our customers resulting from the COVID-19 pandemic;
- Costs associated with rationalization of our portfolio of real estate facilities, including possible exit of leases and facility closures to align with expected activity and workforce capacity;
- Additional asset impairments, including an impairment of the carrying value of our goodwill, along with other accounting charges as demand for our services and products decreases; and,
- Infections and quarantining of our employees and the personnel of our customers, suppliers and other third parties.

Cybersecurity risks and threats could adversely affect our business.

We rely heavily on information systems to conduct our business. Any failure, interruption, or breach in security of our information systems could result in failures or disruptions in our customer relationship management, general ledger systems and other systems. While we have policies and procedures designed to prevent or limit the effect of the failure, interruption or security breach of our information systems, there can be no assurance that any such failures, interruptions or security breaches will not occur or, if they do occur, that any breach or interruption will be sufficiently limited. The occurrence of any failures, interruptions or security breaches of our information systems could damage our reputation, result in a loss of our intellectual property or other proprietary information, including customer data, result in a loss of customer business, subject us to additional regulatory scrutiny, or expose us to civil litigation and possible financial liability, any of which could have a material adverse effect on our financial position or results of operations.

Our ability to hire and retain qualified personnel at competitive cost could materially affect our operations and growth potential.

Many of the products we sell, and related services that we provide, are complex and technologically advanced, which enable them to perform in challenging conditions. Our ability to succeed is, in part, dependent on our success in attracting and retaining qualified personnel to provide service and to design, manufacture, use, install and commission our products. A significant increase in wages paid by competitors, both within and outside the energy industry, for such highly skilled personnel could result in insufficient availability of skilled labor or increase our labor costs, or both. If the supply of skilled labor is constrained or our costs increase, our margins could decrease and our growth potential could be impaired.

Severe weather conditions may adversely affect our operations.

Our business may be materially affected by severe weather conditions in areas where we operate. This may entail the evacuation of personnel and stoppage of services. In addition, if particularly severe weather affects platforms or structures, this may result in a suspension of activities. Any of these events could adversely affect our financial condition, results of operations and cash flows.

An impairment of goodwill or other indefinite lived intangible assets could reduce our earnings.

The Company has approximately \$1.5 billion of goodwill and \$0.2 billion of other intangible assets with indefinite lives as of December 31, 2020. Generally accepted accounting principles require the Company to test goodwill and other indefinite lived intangible assets for impairment on an annual basis or whenever events or circumstances indicate they might be impaired. Events or circumstances which could indicate a potential impairment include (but are not limited to) a significant sustained reduction in worldwide oil and gas prices or drilling; a significant sustained reduction in profitability or cash flow of oil and gas companies or drilling contractors; a significant sustained reduction in capital investment by other oilfield service companies; or a significant increase in worldwide inventories of oil or gas. The timing and magnitude of any goodwill impairment charge, which could be material, would depend on the timing and severity of the event or events triggering the charge and would require a high degree of management judgement. If we were to determine that any of our remaining balance of goodwill or other indefinite lived intangible assets was impaired, we would record an immediate charge to earnings with a corresponding reduction in stockholders' equity; resulting in a possible increase in balance sheet leverage as measured by debt to total capitalization.

See additional discussion on "Goodwill and Other Indefinite – Lived Intangible Assets" in Critical Accounting Estimates of Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations."

We have expanded and grown our businesses through acquisitions and continue to pursue a growth strategy but we cannot assure that attractive acquisitions will be available to us at reasonable prices or at all.

We cannot assure that we will successfully integrate the operations and assets of any acquired business with our own or that our management will be able to manage effectively any new lines of business. Any inability on the part of management to integrate and manage acquired businesses and their assumed liabilities could adversely affect our business and financial performance. In addition, we may need to incur substantial indebtedness to finance future acquisitions. We cannot assure that we will be able to obtain this financing on terms acceptable to us or at all. Future acquisitions may result in increased depreciation and amortization expense, increased interest expense, increased financial leverage or decreased operating income for the Company, any of which could cause our business to suffer.

The adoption of any future federal, state, or local laws or implementing regulations imposing reporting obligations on, or limiting or banning, the hydraulic fracturing process could make it more difficult to complete natural gas and oil wells and could have a material adverse effect on our business, consolidated results of operations and consolidated financial condition.

Various federal and state legislative and regulatory initiatives, as well as actions in other countries, have been or could be undertaken which could result in additional requirements or restrictions being imposed on hydraulic fracturing operations. For example, legislation and/or regulations have been adopted in many U.S. states that require additional disclosure regarding chemicals used in the hydraulic fracturing process but that generally include protections for

proprietary information. Legislation, regulations and/or policies have also been adopted at the state level that impose other types of requirements on hydraulic fracturing operations (such as limits on operations in the event of certain levels of seismic activity). Additional legislation and/or regulations are being considered at the state and local level that could impose further chemical disclosure or other regulatory requirements (such as prohibitions on hydraulic fracturing operations in certain areas) that could affect our operations. Three states (New York, Maryland and Vermont) have banned the use of high volume hydraulic fracturing. Local jurisdictions in some states have adopted ordinances that restrict or in certain cases prohibit the use of hydraulic fracturing, although many of these ordinances have been challenged and some have been overturned. In addition, governmental authorities in various foreign countries where we have provided or may provide hydraulic fracturing services have imposed or are considering imposing various restrictions or conditions that may affect hydraulic fracturing operations.

Legal and Regulatory Related

Our failure to comply with existing or future U.S. and foreign laws and regulations could have a material adverse effect on our business and our results of operations.

Our ability to comply with various complex U.S. and foreign laws and regulations, such as the FCPA, the U.K. Bribery Act and other foreign anti-bribery and anti-corruption laws, various trade control regulations, and human rights and anti-slavery legislation is dependent on the success of our ongoing compliance program, including our ability to continue to effectively supervise and train our employees to deter prohibited practices. These various laws and regulations can change frequently and significantly. We may become involved in a governmental investigation even if the Company has complied with these laws. If we fail to comply with applicable laws and regulation, we could be subject to investigations, sanctions and civil and criminal prosecution as well as fines and penalties, which could have a material adverse effect on our reputation and our business, financial condition, results of operations and cash flows. In addition, government disruptions could negatively impact our ability to conduct our business. Supply chain restrictions such as the U.K. Modern Slavery Act and other similar legislation could also materially affect our supply chain, cost of production, and ability to manufacture our products.

We are also required to comply with various complex U.S. and foreign tax laws, regulations and treaties. These laws, regulations and treaties can change frequently and significantly, and it is reasonable to expect changes in the future. If we fail to comply with any of these tax laws, regulations or treaties, we could be subject to, among other things, civil and criminal prosecution, fines, penalties and confiscation of our assets, which could disrupt our ability to provide our products and services to our customers. Any of these events could have a material adverse effect on our business, financial condition, results of operations and cash flows.

Further, in some instances, direct or indirect consumers of our products and services, entities providing financing for purchases of our products and services or members of the supply chain for our products and services may become involved in governmental investigations, internal investigations, political or other enforcement matters. In such circumstances, such investigations may adversely impact the ability of consumers of our products, entities providing financial support to such consumers or entities in the supply chain to timely perform their business plans or to timely perform under agreements with us. The Company could also become involved in investigations of consumers of our products at significant cost to the Company.

Focus and attention by advocacy groups and regulatory agencies on climate change and greenhouse gas (GHG) emissions in the United States and the European Union has accelerated during the COVID-19 Pandemic. Investors, customers, governance pundits and government officials have increased focus on sustainability, stakeholder governance and the energy transition. As a result, there has been increased promotion of alternative energy sources and increased negative attitudes or perceptions of fossil fuels. The combination of these factors may significantly reduce demand for production of oil and gas and for our products and services. Furthermore, we face increased reputational risk and demand for our stock could be negatively impacted based on societal perceptions of our industry sector and our response to sustainability issues.

We could be adversely affected if we fail to comply with any of the numerous federal, state and local laws, regulations and policies that govern environmental protection, zoning and other matters applicable to our businesses.

Our businesses are subject to numerous federal, state and local laws, regulations and policies governing environmental protection, zoning and other matters. These laws and regulations have changed frequently in the past and it is reasonable to expect additional changes in the future. If existing regulatory requirements change, we may be required to make significant unanticipated capital and operating expenditures. We cannot assure you that our operations will continue to comply with future laws and regulations. Governmental authorities may seek to impose fines and penalties on us or to revoke or deny the issuance or renewal of operating permits for failure to comply with applicable laws and regulations. Under these circumstances, we might be required to reduce or cease operations or conduct site remediation or other corrective action which could adversely impact our operations and financial condition.

Our businesses expose us to potential environmental, product or personal injury liability.

Our businesses expose us to the risk that harmful substances may escape into the environment or a product could fail to perform or cause personal injury, or individuals may assert claims due to exposure to chemicals, harmful substances, environmental conditions any of which could result in:

- personal injury or loss of life;
- severe damage to or destruction of property; or,
- environmental damage and suspension of operations.

Our current and past activities, as well as the activities of our former divisions and subsidiaries, could result in our facing substantial environmental, regulatory, personnel injury, class action, mass tort and other litigation and liabilities. These could include the costs of cleanup of contaminated sites and site closure obligations. These liabilities could also be imposed on the basis of one or more of the following theories:

- negligence;
- strict liability;
- products liability;
- breach of contract with customers; or,
- as a result of our contractual agreement to indemnify our customers in the normal course of business, which is normally the case.

We may not have adequate insurance for potential environmental, product or personal injury liabilities.

While we maintain liability insurance, this insurance is subject to coverage limits. In addition, certain policies do not provide coverage for damages resulting from environmental contamination or may exclude coverage for other reasons. We face the following risks with respect to our insurance coverage:

- we may not be able to continue to obtain insurance on commercially reasonable terms;
- we may be faced with types of liabilities that will not be covered by our insurance;
- our insurance carriers may not be able to meet their obligations under the policies; or,
- the dollar amount of any liabilities may exceed our policy limits.

Even a partially uninsured claim, if successful and of significant size, could have a material adverse effect on our consolidated financial statements.

The adoption of climate change legislation, restrictions on emissions of greenhouse gases, or other environmental regulations could increase our operating costs or reduce demand for our products.

Environmental advocacy groups and regulatory agencies in the United States and other countries have been focusing considerable attention on the emissions of carbon dioxide, methane and other greenhouse gases and their potential role in climate change. The adoption of laws and regulations to implement controls of greenhouse gases, including the

imposition of fees or taxes, could adversely impact our operations and financial condition. The U.S. Congress and other governments routinely consider legislation to control and reduce emissions of greenhouse gases and other climate change related legislation, which could require significant reductions in emissions from oil and gas related operations. Changes in the legal and regulatory environment could reduce oil and natural gas drilling activity and result in a corresponding decline in the demand for our products and services, which could adversely impact our operating results and financial condition.

Local content requirements imposed in certain jurisdictions may increase the complexity of our operations and impact the demand for our services.

A growing number of nations are requiring equipment providers and contractors to meet local content requirements or other local standards. To meet many of these local content and other requirements, we are required to attract and retain qualified local personnel. If we are unable to do so because the supply of qualified local personnel is constrained for any reason, the growth and profitability of our business may be adversely affected. In addition, our ability to work in certain jurisdictions is sometimes subject to our ability to successfully negotiate and agree upon acceptable joint venture agreements. The failure to reach acceptable agreements could adversely impact the Company's operations in certain countries. Additionally, we may share control of joint ventures with unaffiliated third parties. Differences in views, and disagreements, among joint venture parties may result in delayed decision making and disputes on important issues. In some instances, we could suffer a material adverse effect to the results of our joint ventures and our consolidated results of operations.

GLOSSARY OF OILFIELD TERMS

	(Sources: Company management; “A Dictionary for the Petroleum Industry,” The University of Texas at Austin, 2001.)
API	Abbr: American Petroleum Institute
Annular Blowout Preventer	A large valve, usually installed above the ram blowout preventers, that forms a seal in the annular space between the pipe and the wellbore or, if no pipe is present, in the wellbore itself.
Annulus	The open space around pipe in a wellbore through which fluids may pass.
Automatic Pipe Handling Systems (Automatic Pipe Racker)	A device used on a drilling rig to automatically remove and insert drill stem components from and into the hole. It replaces the need for a person to be in the derrick or mast when tripping pipe into or out of the hole.
Automatic Roughneck	A large, self-contained pipe-handling machine used by drilling crew members to make up and break out tubulars. The device combines a spinning wrench, torque wrench, and backup wrenches.
Beam pump	Surface pump that raise and lowers sucker rods continually, so as to operate a downhole pump.
Bit	The cutting or boring element used in drilling oil and gas wells. The bit consists of a cutting element and a circulating element. The cutting element is steel teeth, tungsten carbide buttons, industrial diamonds, or polycrystalline diamonds (“PDCs”). These teeth, buttons, or diamonds penetrate and gouge or scrape the formation to remove it. The circulating element permits the passage of drilling fluid and utilizes the hydraulic force of the fluid stream to improve drilling rates. In rotary drilling, several drill collars are joined to the bottom end of the drill pipe column, and the bit is attached to the end of the drill collars. Drill collars provide weight on the bit to keep it in firm contact with the bottom of the hole.
Blowout	An uncontrolled flow of gas, oil or other well fluids into the atmosphere. A blowout, or gusher, occurs when formation pressure exceeds the pressure applied to it by the column of drilling fluid. A kick warns of an impending blowout.
Blowout Preventer (BOP)	Series of valves installed at the wellhead while drilling to prevent the escape of pressurized fluids.
Blowout Preventer (BOP) Stack	The assembly of well-control equipment including preventers, spools, valves, and nipples connected to the top of the wellhead.
Borehole Enlargement (“BHE”)	The process of opening up or enlarging the internal diameter of the wellbore. This is typically done with under-reamers, reamers, or hole openers.
Bottomhole Assembly (“BHA”)	The lower portion of the drillstring including (if used): the bit, bit sub, mud motor, stabilizers, drillcollar, heavy-weight drillpipe, jarring devices, and crossovers for various thread forms.
Carbon-Neutral	The state of achieving net zero carbon dioxide emissions with removal or simply eliminating carbon dioxide emissions altogether.
Closed Loop Drilling Systems	A solids control system in which the drilling mud is reconditioned and recycled through the drilling process on the rig itself.

Coiled Tubing	A continuous string of flexible steel tubing, often hundreds or thousands of feet long, that is wound onto a reel, often dozens of feet in diameter. The reel is an integral part of the coiled tubing unit, which consists of several devices that ensure the tubing can be safely and efficiently inserted into the well from the surface. Because tubing can be lowered into a well without having to make up joints of tubing, running coiled tubing into the well is faster and less expensive than running conventional tubing. Rapid advances in the use of coiled tubing make it a popular way in which to run tubing into and out of a well. Also called reeled tubing.
Cuttings	Fragments of rock dislodged by the bit and brought to the surface in the drilling mud. Washed and dried cutting samples are analyzed by geologist to obtain information about the formations drilled.
Directional Well	Well drilled in an orientation other than vertical in order to access broader portions of the formation.
Drawworks	The hoisting mechanism on a drilling rig. It is essentially a large winch that spools off or takes in the drilling line and thus raises or lowers the drill stem and bit.
Drill Pipe Elevator (Elevator)	On conventional rotary rigs and top-drive rigs, hinged steel devices with manual operating handles that crew members latch onto a tool joint (or a sub). Since the elevators are directly connected to the traveling block, or to the integrated traveling block in the top drive, when the driller raises or lowers the block or the top-drive unit, the drill pipe is also raised or lowered.
Drilling jars	A percussion tool operated manually or hydraulically to deliver a heavy downward blow to free a stuck drill stem.
Drilling mud	A specially compounded liquid circulated through the wellbore during rotary drilling operations.
Drilling riser	A conduit used in offshore drilling through which the drill bit and other tools are passed from the rig on the water's surface to the sea floor.
Drill stem	All members in the assembly used for rotary drilling from the swivel to the bit, including the Kelly, the drill pipe and tool joints, the drill collars, the stabilizers, and various specialty items.
Fiberglass-reinforced spoolable pipe	A spoolable glass fiber-reinforced epoxy composite tubular product for onshore oil and gas gathering and injection systems, with superior corrosion resistant properties and lower installed cost than steel.
Flexible pipe	A dynamic riser that connects subsea production equipment to a topside facility allowing for the flow of oil, gas, and/or water. Also used on the seafloor to tie wells and subsea equipment together.
Formation	A bed or deposit composed throughout of substantially the same kind of rock; often a lithologic unit. Each formation is given a name, frequently as a result of the study of the formation outcrop at the surface and sometimes based on fossils found in the formation.
FPSO	A Floating Production, Storage and Offloading vessel used to receive hydrocarbons from subsea wells, and then produce and store the hydrocarbons until they can be offloaded to a tanker or pipeline.

Hardbanding	A special wear-resistant material often applied to tool joints to prevent abrasive wear to the area when the pipe is being rotated downhole.
Hub Height	The distance from the turbine platform to the rotor of an installed wind turbine and indicates how high the turbine stands above the ground (or water), not including the length of the wind blades.
Hydraulic Fracturing	The process of creating fractures in a formation by pumping fluids, at high pressures, into the reservoir, which allows or enhances the flow of hydrocarbons.
Iron Roughneck	A floor-mounted combination of a spinning wrench and a torque wrench. The Iron Roughneck moves into position hydraulically and eliminates the manual handling involved with suspended individual tools.
Jack-up rig	A mobile bottom-supported offshore drilling structure with columnar or open-truss legs that support the deck and hull. When positioned over the drilling site, the bottoms of the legs penetrate the seafloor.
Jar	A mechanical device placed near the top of the drill stem which allows the driller to strike a very heavy blow upward or downward on stuck pipe.
Joint	1. In drilling, a single length (from 16 feet to 45 feet, or 5 meters to 14.5 meters, depending on its range length) of drill pipe, drill collar, casing or tubing that has threaded connections at both ends. Several joints screwed together constitute a stand of pipe. 2. In pipelining, a single length (usually 40 feet-12 meters) of pipe. 3. In sucker rod pumping, a single length of sucker rod that has threaded connections at both ends.
Kelly	The heavy steel tubular device, four-or six-sided, suspended from the swivel through the rotary table and connected to the top joint of drill pipe to turn the drill stem as the rotary table turns. It has a bored passageway that permits fluid to be circulated into the drill stem and up the annulus, or vice versa. Kellys manufactured to API specifications are available only in four-or six-sided versions, are either 40 or 54 feet (12 or 16 meters) long, and have diameters as small as 2.5 inches (6 centimeters) and as large as 6 inches (15 centimeters).
Kelly bushing	A special device placed around the kelly that mates with the kelly flats and fits into the master bushing of the rotary table. The kelly bushing is designed so that the kelly is free to move up or down through it. The bottom of the bushing may be shaped to fit the opening in the master bushing or it may have pins that fit into the master bushing. In either case, when the kelly bushing is inserted into the master bushing and the master bushing is turned, the kelly bushing also turns. Since the kelly bushing fits onto the kelly, the kelly turns, and since the kelly is made up to the drill stem, the drill stem turns. Also called the drive bushing.
Kelly spinner	A pneumatically operated device mounted on top of the kelly that, when actuated, causes the kelly to turn or spin. It is useful when the kelly or a joint of pipe attached to it must be spun up, that is, rotated rapidly for being made up.
Kick	An entry of water, gas, oil, or other formation fluid into the wellbore during drilling. It occurs because the pressure exerted by the column of drilling fluid is not great enough to overcome the pressure exerted by the fluids in the formation drilled. If prompt action is not taken to control the kick, or kill the well, a blowout may occur.
Levelized Cost of Energy (“LCOE”)	A measure of the average net present cost of electricity generation for a generating plant over its lifetime. The LCOE is calculated as the ratio between all the discounted costs over the lifetime on an electricity generating plant divided by a

discounted sum of the actual energy amounts delivered. LCOE is used to compare different methods of electricity generation on a consistent basis.

Making-up	1. To assemble and join parts to form a complete unit (e.g., to make up a string of drill pipe). 2. To screw together two threaded pieces. 3. To mix or prepare (e.g., to make up a tank of mud). 4. To compensate for (e.g., to make up for lost time).
Manual tongs (Tongs)	The large wrenches used for turning when making up or breaking out drill pipe, casing, tubing, or other pipe; variously called casing tongs, pipe tongs, and so forth, according to the specific use. Power tongs or power wrenches are pneumatically or hydraulically operated tools that serve to spin the pipe up tight and, in some instances to apply the final makeup torque.
Master bushing	A device that fits into the rotary table to accommodate the slips and drive the kelly bushing so that the rotating motion of the rotary table can be transmitted to the kelly. Also called rotary bushing.
Mooring system	The method by which a vessel or buoy is fixed to a certain position, whether permanently or temporarily.
Motion compensation equipment	Any device (such as a bumper sub or heave compensator) that serves to maintain constant weight on the bit in spite of vertical motion of a floating offshore drilling rig.
Mud pump	A large, high-pressure reciprocating pump used to circulate the mud on a drilling rig.
Nacelle	A cover housing that houses all of the generating components in a wind turbine, including the generator, gearbox, drive train, and brake assembly. The nacelle must be easily accessible for maintenance and repair work.
Plug gauging	The mechanical process of ensuring that the inside threads on a piece of drill pipe comply with API standards.
Pressure control equipment	Equipment used in: 1. The act of preventing the entry of formation fluids into a wellbore. 2. The act of controlling high pressures encountered in a well.
Pressure pumping	Pumping fluids into a well by applying pressure at the surface.
Ram blowout preventer	A blowout preventer that uses rams to seal off pressure on a hole that is with or without pipe. Also called a ram preventer.
Ring gauging	The mechanical process of ensuring that the outside threads on a piece of drill pipe comply with API standards.
Riser pipe	The pipe and special fitting used on floating offshore drilling rigs to establish a seal between the top of the wellbore, which is on the ocean floor, and the drilling equipment located above the surface of the water. A riser pipe serves as a guide for the drill stem from the drilling vessel to the wellhead and as a conductor for drilling fluid from the well to the vessel. The riser consists of several sections of pipe and includes special devices to compensate for any movement of the drilling rig caused by waves. Also called marine riser pipe, riser joint.
Rotary table	The principal piece of equipment in the rotary table assembly; a turning device used to impart rotational power to the drill stem while permitting vertical movement of the pipe for rotary drilling. The master bushing fits inside the opening of the rotary table; it turns the kelly bushing, which permits vertical movement of the kelly while the stem is turning.

Rotating blowout preventer (Rotating Head)	A sealing device used to close off the annular space around the kelly in drilling with pressure at the surface, usually installed above the main blowout preventers. A rotating head makes it possible to drill ahead even when there is pressure in the annulus that the weight of the drilling fluid is not overcoming; the head prevents the well from blowing out. It is used mainly in the drilling of formations that have low permeability. The rate of penetration through such formations is usually rapid.
Safety clamps	A clamp placed very tightly around a drill collar that is suspended in the rotary table by drill collar slips. Should the slips fail, the clamp is too large to go through the opening in the rotary table and therefore prevents the drill collar string from falling into the hole. Also called drill collar clamp.
Shale shaker	A piece of drilling rig equipment that uses a vibrating screen to remove cuttings from the circulating fluid in rotary drilling operations. The size of the openings in the screen should be selected carefully to be the smallest size possible to allow 100 per cent flow of the fluid. Also called a shaker.
Slim-hole completions (Slim-hole Drilling)	Drilling in which the size of the hole is smaller than the conventional hole diameter for a given depth. This decrease in hole size enables the operator to run smaller casing, thereby lessening the cost of completion.
Slips	Wedge-shaped pieces of metal with serrated inserts (dies) or other gripping elements, such as serrated buttons, that suspend the drill pipe or drill collars in the master bushing of the rotary table when it is necessary to disconnect the drill stem from the kelly or from the top-drive unit's drive shaft. Rotary slips fit around the drill pipe and wedge against the master bushing to support the pipe. Drill collar slips fit around a drill collar and wedge against the master bushing to support the drill collar. Power slips are pneumatically or hydraulically actuated devices that allow the crew to dispense with the manual handling of slips when making a connection.
Solids	See "Cuttings"
Spinning wrench	Air-powered or hydraulically powered wrench used to spin drill pipe in making or breaking connections.
Spinning-in	The rapid turning of the drill stem when one length of pipe is being joined to another. "Spinning-out" refers to separating the pipe.
Stand	The connected joints of pipe racked in the derrick or mast when making a trip. On a rig, the usual stand is about 90 feet (about 27 meters) long (three lengths of drill pipe screwed together), or a treble.
Steerable Technologies	Tools that allow for steering the BHA towards a target while rotating from surface.
String	The entire length of casing, tubing, sucker rods, or drill pipe run into a hole.
Sucker rod	A special steel pumping rod. Several rods screwed together make up the link between the pumping unit on the surface and the pump at the bottom of the well.
Tensioner	A system of devices installed on a floating offshore drilling rig to maintain a constant tension on the riser pipe, despite any vertical motion made by the rig. The guidelines must also be tensioned, so a separate tensioner system is provided for them.
Thermal desorption	The process of removing drilling mud from cuttings by applying heat directly to drill cuttings.

Tiebacks (Subsea)	A series of flowlines and pipes that connect numerous subsea wellheads to a single collection point.
Top drive	A device similar to a power swivel that is used in place of the rotary table to turn the drill stem. It also includes power tongs. Modern top drives combine the elevator, the tongs, the swivel, and the hook. Even though the rotary table assembly is not used to rotate the drill stem and bit, the top-drive system retains it to provide a place to set the slips to suspend the drill stem when drilling stops.
Torque wrench	Spinning wrench with a gauge for measuring the amount of torque being applied to the connection.
Trouble cost	Costs incurred as a result of unanticipated complications while drilling a well. These costs are often referred to as contingency costs during the planning phase of a well.
Turret	Mechanical device that allows a floating vessel to rotate around stationary flowlines, umbilicals, and other associated risers.
Well completion	1. The activities and methods of preparing a well for the production of oil and gas or for other purposes, such as injection; the method by which one or more flow paths for hydrocarbons are established between the reservoir and the surface. 2. The system of tubulars, packers, and other tools installed beneath the wellhead in the production casing; that is, the tool assembly that provides the hydrocarbon flow path or paths.
Wellhead	The termination point of a wellbore at surface level or subsea, often incorporating various valves and control instruments.
Well stimulation	Any of several operations used to increase the production of a well, such as acidizing or fracturing.
Well workover	The performance of one or more of a variety of remedial operations on a producing oil well to try to increase production. Examples of workover jobs are deepening, plugging back, pulling and resetting liners, and squeeze cementing.
Wellbore	A borehole; the hole drilled by the bit. A wellbore may have casing in it or it may be open (uncased); or part of it may be cased, and part of it may be open. Also called a borehole or hole.
Wireline	A slender, rodlike or threadlike piece of metal usually small in diameter, that is used for lowering special tools (such as logging sondes, perforating guns, and so forth) into the well. Also called slick line.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

The Company owned or leased approximately 573 facilities worldwide as of December 31, 2020, including the following principal manufacturing, service, distribution and administrative facilities:

Location	Description	Building Size (SqFt)	Property Size (Acres)	Owned / Leased	Lease Termination Date
Wellbore Technologies:					
Navasota, Texas	Manufacturing Facility & Administrative Offices	562,112	196	Owned	
Conroe, Texas	Manufacturing Facility of Drill Bits and Downhole Tools, Administrative & Sales Offices	410,623	35	Owned	
Houston, Texas	Sheldon Road Inspection Facility	319,365	192	Owned	
Veracruz, Mexico	Manufacturing Facility of Tool Joints, Warehouse & Administrative Offices	303,400	42	Owned	
Houston, Texas	Holmes Rd Complex: Manufacturing, Warehouse, Coating Manufacturing Plant & Corporate Office	300,000	50	Owned	
Cedar Park, Texas	Instrumentation Manufacturing Facility, Administrative & Sales Offices	215,778	34	Owned	
Dubai, UAE	Manufacturing Facility of Downhole Tools, Distribution Warehouse	184,492	8	Leased	1/29/2021
Conroe, Texas	Solids Control Manufacturing Facility, Warehouse, Administrative & Sales Offices, and Engineering Labs	153,750	42	Owned	
Houston, Texas	Manufacturing of plastic thread products	158,250	7	Owned	
Completion & Production Solutions:					
Senai, Malaysia	Manufacturing Facility of Fiber Glass Products	595,965	14	Owned*	10/31/2027
Kalundborg, Denmark	Flexibles Manufacturing, Warehouse, Shop & Administrative Offices	485,067	38	Owned	
Superporto du Acu, Brazil	Flexibles Manufacturing, Warehouse, Shop & Administrative Offices	464,885	30	Owned*	10/20/2031
Manchester, England	Manufacturing, Assembly & Testing of PC Pumps and Expendable Parts, Administrative & Sales Offices	464,000	28	Owned	
Houston, Texas	Manufacturing of Wireline and Pressure Performance Equipment, Warehouse and Administrative Offices	383,750	26	Leased	6/30/2041
Fort Worth, Texas	Coiled Tubing Manufacturing Facility, Warehouse, Administrative & Sales Offices	342,999	24	Owned	
Qingdao, Shandong, China	Manufacturing of fiber-reinforced tubular products	309,150	25	Leased	10/26/2036
Tulsa, Oklahoma	Manufacturing Facility of Pumps, Warehouse and Administrative & Sales Offices	222,625	10	Owned	
Houston, Texas	Manufacturing of fiber-reinforced tubular products & Administrative Offices	130,873	6	Leased	4/30/2021
Kintore, Aberdeenshire, Scotland, UK	Manufacturing & Servicing of Elmar, ASEP and Anson Equipment	210,000	13	Leased	9/3/2037
Dammam, Saudi Arabia	Manufacturing of fiberglass products	213,484	23	Leased	12/7/2036
Mt. Union, Pennsylvania	Manufacturing of fiberglass products	160,000	24	Owned	
Rig Technologies:					
Houston, Texas	Bammel Facility, Repairs, Service, Aftermarket Parts, Administrative & Sales Offices	602,110	33	Leased	6/30/2028
Houston, Texas	Manufacturing Plant of Drilling Equipment	511,964	36	Leased	4/30/2022
Houston, Texas	West Little York Manufacturing Facility, Repairs, Service, Administrative & Sales Offices	483,450	51	Owned	
New Iberia, Louisiana	Repair, Services and Spares facility	189,000	17	Leased	10/1/2025
Singapore	Manufacturing, Repairs, Service, Field Service/Training, Administrative & Sales Offices	133,659	4	Leased	1/5/2024
Dubai, UAE	Repair & Overhaul of Drilling Equipment, Warehouse & Sales Office	39,433	2	Owned	
Corporate:					
Houston, Texas	Corporate and Shared Administrative Offices	337,019	14	Leased	5/31/2037
Houston, Texas	Corporate and Shared Administrative Offices	441,029	3	Leased	1/31/2041

*Building owned but land leased.

We own or lease approximately 325 repair and manufacturing facilities that refurbish and manufacture new equipment and parts, 122 service centers that provide inspection and equipment rental and 126 engineering, sales and administration facilities.

ITEM 3. LEGAL PROCEEDINGS

See Note 12 – Commitments and Contingencies (Part IV, Item 15 of this Form 10-K) for further discussion.

ITEM 4. MINE SAFETY DISCLOSURES

Information regarding mine safety and other regulatory actions at our mines is included in Exhibit 95 to this Form 10-K.

PART II

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

Market Information

Our common stock is traded on the New York Stock Exchange (NYSE) under the symbol "NOV". As of February 5, 2021, there were 2,462 holders of record of our common stock. Many stockholders choose to own shares through brokerage accounts and other intermediaries rather than as holders of record (excluding individual participants in securities positions listing) so the actual number of stockholders is unknown but significantly higher.

Cash dividends declared were \$0.05 per share in the first quarter of 2020 and \$0.05 per share in the first, second, third, and fourth quarters of 2019, aggregating to \$19 million and \$77 million for the years ended December 31, 2020 and 2019, respectively. We have no plans to pay dividends in the future; however, the declaration and payment of future dividends is at the discretion of the Company's Board of Directors and will be dependent upon the Company's results of operations, financial condition, capital requirements, future outlook and other factors deemed relevant by the Company's Board of Directors.

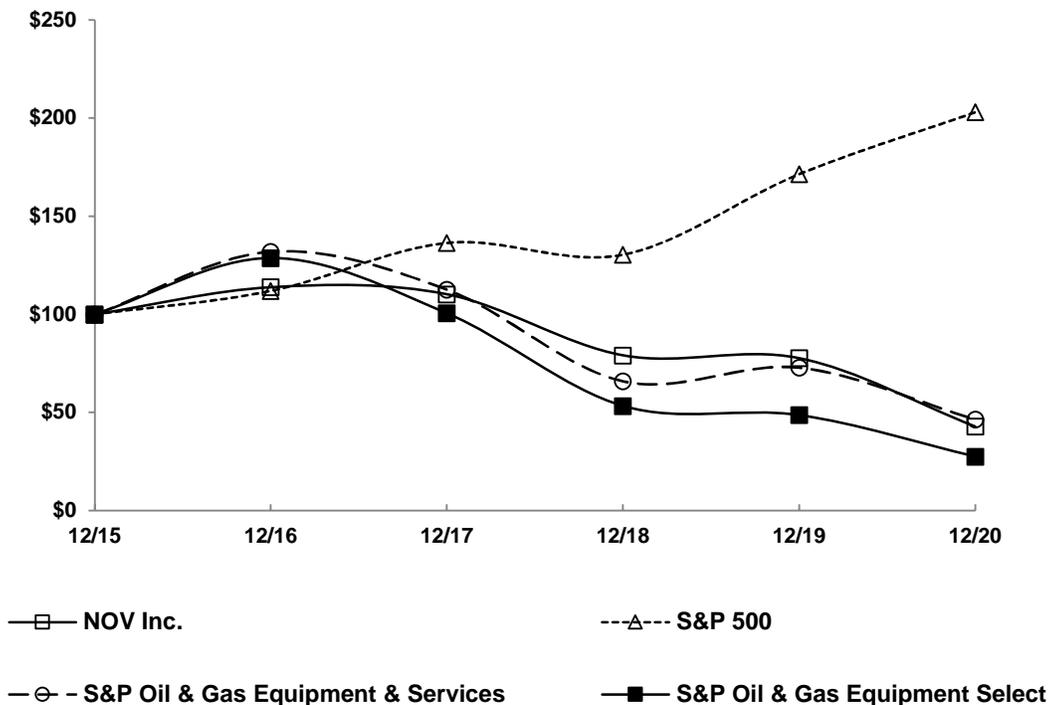
The information relating to our equity compensation plans required by Item 5. "Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities" is incorporated by reference to such information as set forth in Item 12. "Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters" contained herein.

PERFORMANCE GRAPH

The graph below compares the cumulative total shareholder return on our common stock to the S&P 500 Index and the S&P Oil & Gas Equipment & Services Index. The total shareholder return assumes \$100 invested on December 31, 2015 in NOV Inc., the S&P Oil & Gas Equipment Select Index, the S&P 500 Index and the S&P Oil & Gas Equipment & Services Index. It also assumes reinvestment of all dividends. The results shown in the graph below are not necessarily indicative of future performance.

COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN*

Among NOV Inc., the S&P 500 Index, the S&P Oil & Gas Equipment & Services Index, the PHLX Oil Service Sector Index and the S&P Oil & Gas Equipment Select Index



*\$100 invested on 12/31/15 in stock or index, including reinvestment of dividends. Fiscal year ending December 31.

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	12/15	12/16	12/17	12/18	12/19	12/20
NOV Inc.	100.00	113.91	110.23	79.07	77.74	42.85
S&P 500	100.00	111.96	136.40	130.42	171.49	203.04
S&P Oil & Gas Equipment & Services	100.00	131.93	112.56	65.88	72.83	46.45
S&P Oil & Gas Equipment Select	100.00	128.70	100.61	53.30	48.70	27.57

This information shall not be deemed to be “soliciting material” or to be “filed” with the Commission or subject to Regulation 14A (17 CFR 240.14a-1-240.14a-104), other than as provided in Item 201(e) of Regulation S-K, or to the liabilities of section 18 of the Exchange Act (15 U.S.C. 78r).

Purchases of Equity Securities by the Issuer and Affiliated Purchasers

Period	Total number of shares purchased*	Average price paid per share	Total number of shares purchased as part of publicly announced plans or programs	Approximate dollar value of shares that may yet be purchased under the plans or programs*
October 1 through October 31, 2020	—	—	—	—
November 1 through November 30, 2020	—	—	—	—
December 1 through December 31, 2020	—	—	—	—
Total ⁽¹⁾	—	\$ —	—	—

**Amounts in thousands*

(1) No shares were purchased during the three-month period ended December 31, 2020.

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

General Overview

The Company is a leading independent provider of equipment and technology to the upstream oil and gas industry. With operations in approximately 573 locations across six continents, NOV designs, manufactures and services a comprehensive line of drilling, well servicing and offshore construction equipment; sells and rents drilling motors, specialized downhole tools, and rig instrumentation; performs inspection and internal coating of oilfield tubular products; provides drill cuttings separation, management and disposal systems and services; and provides expendables and spare parts used in conjunction with the Company's large installed base of equipment. NOV also manufactures coiled tubing and high-pressure fiberglass and composite tubing and sells and rents advanced in-line inspection equipment to makers of oil country tubular goods. More recently, by applying its deep knowledge in technology, the Company has helped advance the transition toward sustainable energy. The Company has a long tradition of pioneering innovations which improve the cost-effectiveness, efficiency, safety, and environmental impact of oil and gas operations.

NOV's revenue and operating results are principally directly related to the level of worldwide oil and gas drilling and production activities and the profitability and cash flow of oil and gas companies and drilling contractors, which in turn are affected by current and anticipated prices of oil and gas. Oil and gas prices have been and are likely to continue to be volatile. See Item 1A. "Risk Factors". The Company conducts its operations through three business segments: Wellbore Technologies, Completion & Production Solutions and Rig Technologies. See Item 1. "Business", for a discussion of each of these business segments.

Unless indicated otherwise, results of operations are presented in accordance with accounting principles generally accepted in the United States ("GAAP"). Certain reclassifications have been made to the prior year financial statements in order for them to conform with the 2020 presentation. The Company discloses Adjusted EBITDA (defined as Operating Profit excluding Depreciation, Amortization and Other Items) in its periodic earnings press releases and other public disclosures to provide investors additional information about the results of ongoing operations. See Non-GAAP Financial Measures and Reconciliations in Results of Operations for an explanation of our use of non-GAAP financial measures and reconciliations to their corresponding measures calculated in accordance with GAAP.

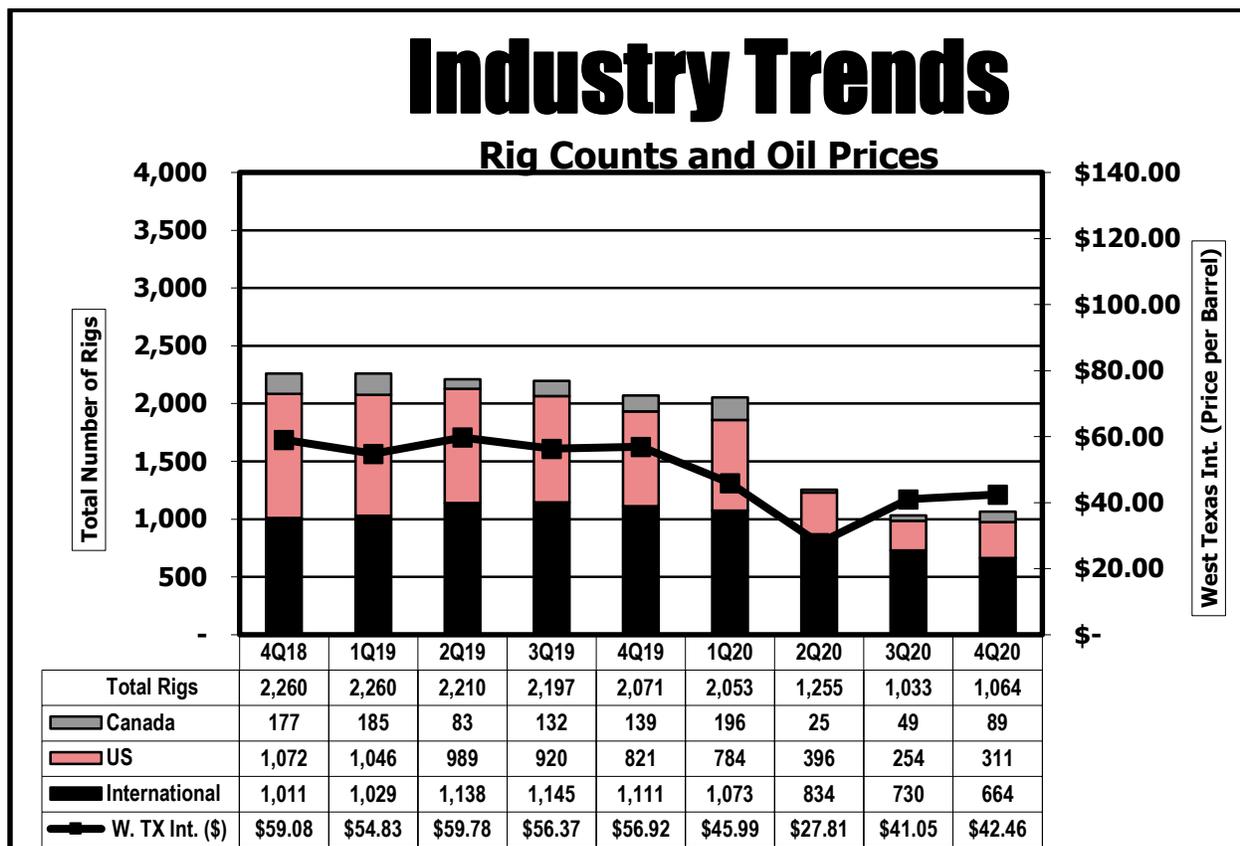
Operating Environment Overview

NOV's results are dependent on, among other things, the level of worldwide oil and gas drilling, well remediation activity, the price of crude oil and natural gas, capital spending by exploration and production companies and drilling contractors, worldwide oil and gas inventory levels and, to a lesser degree, the level of investment in wind and geothermal energy products. Key industry indicators for the past three years include the following:

	2020*	2019*	2018*	% increase (decrease)	
				2020 v 2019	2020 v 2018
Active Drilling Rigs:					
U.S.	436	944	1,031	(53.8%)	(57.7%)
Canada	90	135	191	(33.3%)	(52.9%)
International	825	1,106	988	(25.4%)	(16.5%)
Worldwide	1,351	2,185	2,210	(38.2%)	(38.9%)
West Texas Intermediate Crude Prices (per barrel)	\$ 39.33	\$ 56.98	\$ 64.94	(31.0%)	(39.4%)
Natural Gas Prices (\$/mmbtu)	\$ 2.01	\$ 2.52	\$ 3.13	(20.2%)	(35.8%)

* Averages for the years indicated. See sources below.

The following table details the U.S., Canadian, and international rig activity and West Texas Intermediate Oil prices for the past nine quarters ended December 31, 2020 on a quarterly basis:



Source: Rig count: Baker Hughes, Inc. (www.bakerhughes.com); West Texas Intermediate Crude Price, Natural Gas Price: US Department of Energy, Energy Information Administration (www.eia.doe.gov).

The average price per barrel of West Texas Intermediate Crude was \$39.33 in 2020, a decrease of 31% over the average price for 2019 of \$56.98 per barrel. The average natural gas price in 2020 was \$2.01 per mmbtu, a decrease of 20% percent compared to the 2019 average of \$2.52 per mmbtu. Average rig activity worldwide decreased 38 percent for the full year in 2020 compared to 2019. The average crude oil price for the fourth quarter of 2020 was \$42.46 per barrel, and natural gas was \$2.50 per mmbtu.

At February 5, 2021, there were 563 rigs actively drilling in North America, compared to the fourth quarter average of 400 rigs, an increase of 41 percent. The price for West Texas Intermediate Crude Oil was \$56.852 per barrel at February 5, 2021, an increase of 34 percent from the fourth quarter of 2020 average. The price for natural gas was \$2.86 per mmbtu at February 5, 2021, an increase of 15 percent from the fourth quarter of 2020 average.

EXECUTIVE SUMMARY

NOV Inc. generated revenue of \$6.09 billion in 2020, which was lower from the prior year as COVID-19 related restrictions decreased economic activity, sharply lowering oil and gas prices, and declining drilling activity worldwide led to a 28 percent decline in revenue. Average 2020 worldwide rig count (as measured by Baker Hughes) decreased significantly when compared to 2019.

For the year ended December 31, 2020, the Company reported an operating loss of \$2,425 million compared to an operating loss of \$6,279 million in 2019, and a net loss attributable to the Company of \$2,542 million, or \$6.62 per share compared to a net loss of \$6,095 million or \$15.96 per share during 2019.

For the fourth quarter ended December 31, 2020, revenue was \$1.33 billion, a \$57 million or four percent decrease compared to the third quarter of 2020. The Company reported a net loss of \$347 million, or \$0.90 per fully diluted share, a decrease of \$292 million, or \$0.76 per fully diluted share, from the third quarter of 2020. Compared to the fourth quarter of 2019, revenue decreased \$954 million or 42 percent, and net income increased \$38 million.

During the fourth quarter of 2020, third quarter of 2020, and fourth quarter of 2019, pre-tax other items: goodwill, intangible and long-lived asset impairment charges, inventory charges, severance accruals, and other charges and credits (collectively "Other Items"), were \$236 million, \$62 million, and \$537 million, respectively. Excluding the Other Items from all periods, fourth quarter 2020 Adjusted EBITDA was \$17 million, compared to \$71 million in the third quarter of 2020 and \$288 million in the fourth quarter of 2019.

Segment Performance

Wellbore Technologies

Wellbore Technologies generated revenues of \$373 million in the fourth quarter of 2020, an increase of three percent from the third quarter of 2020 and a decrease of 51 percent from the fourth quarter of 2019. The increase in revenues resulted from increased drilling activity levels in North America partially offset by declines in international and offshore markets. Operating loss, which included \$46 million in Other Items, was \$78 million. Adjusted EBITDA decreased \$9 million sequentially and \$131 million from the prior year to \$12 million, or 3.2 percent of sales.

Completion & Production Solutions

Completion & Production Solutions generated revenues of \$546 million in the fourth quarter of 2020, a decrease of nine percent from the third quarter of 2020 and a decrease of 32 percent from the fourth quarter of 2019. Lower backlog and logistical disruptions from COVID-19-related restrictions contributed to the sequential decline. Operating loss, which included \$43 million in Other Items, was \$31 million. Adjusted EBITDA decreased \$35 million sequentially and \$68 million from the prior year to \$28 million, or 5.1 percent of sales.

New orders booked improved 27 percent sequentially to \$215 million, representing a book-to-bill of 66 percent when compared to the \$328 million of orders shipped from backlog. Backlog for capital equipment orders for Completion & Production Solutions at December 31, 2020 was \$696 million.

Rig Technologies

Rig Technologies generated revenues of \$437 million in the fourth quarter of 2020, a decrease of three percent from the third quarter of 2020 and a decrease of 42 percent from the fourth quarter of 2019. Declining offshore drilling activity levels resulting in lower capital equipment backlog contributed to the sequential decline in revenues. Operating loss, which included \$132 million in Other Items, was \$132 million. Adjusted EBITDA decreased \$9 million sequentially and \$93 million from the prior year to \$19 million, or 4.3 percent of sales.

New orders booked during the quarter totaled \$190 million, representing a book-to-bill of 105 percent when compared to the \$181 million of orders shipped from backlog. At December 31, 2020, backlog for capital equipment orders for Rig Technologies was \$2.7 billion.

Oil & Gas Equipment and Services Market and Outlook

Following approximately two and a half years of steady improvements in oil prices and global drilling activity levels, prices declined sharply during the fourth quarter of 2018 due to stronger than expected growth in U.S. production and concerns regarding the global economy. As a result of reduced budgets, and despite a modest recovery in commodity prices, drilling activity levels in the U.S. declined throughout 2019 resulting in the first double digit percentage decrease in the average annual rig count since 2016. While the North American market deteriorated, the new-found capital austerity and fiscal discipline exhibited by U.S. operators along with declining production from underinvestment in overseas markets and rapidly growing demand for LNG inspired greater levels of confidence from international oil and gas companies. The industry entered 2020 anticipating higher international and offshore activity levels would mostly offset the ongoing effects of capital austerity in the North American land marketplace.

During the first quarter of 2020, the coronavirus (COVID-19) outbreak rapidly spread across the world, driving sharp demand destruction for crude oil as countries took measures to curtail activity to slow the spread of the outbreak. In response to declining market share, members of the Organization of the Petroleum Exporting Countries and other producing countries (OPEC+), including Russia, increased production into the already oversupplied market, decimating oil prices and rapidly filling worldwide storage facilities. In April 2020, OPEC+ began to reduce production, which had only a muted positive effect on oil prices due to market concerns that the cuts were significantly less than the demand destruction caused by COVID-19. As a result, companies across the industry responded with severe capital spending budget cuts, cost cuts, personnel layoffs, facility closures and bankruptcy filings. The COVID-19 virus continued to spread throughout 2020, extending depressed demand, uncertainty and additional spending reductions by the entire oil and gas industry as the U.S. rig count fell to its lowest level since 1940 in August of 2020. In response to the economic destruction caused by the COVID-19 pandemic, many governments implemented stimulus programs to aid individuals and businesses. The size, method and effectiveness of these programs varies greatly and, although generally helpful to the economy, they have not restored prior levels of demand for oil and gas.

During the fourth quarter of 2020 rising activity levels in the U.S. drove higher revenues for NOV's short-cycle businesses in North America. These modest improvements were offset by a decline in international drilling activity and limited demand for capital equipment. Management expects industry activity levels and spending by customers to remain depressed during the beginning of 2021, as demand destruction from COVID-19 persists, but is optimistic that improving commodity prices, rising activity, and the actions NOV is taking to position its business for the future will result in improved profitability over the course of 2021. NOV remains committed to streamlining operations and improving organizational efficiencies while focusing on investing in innovative products and services, including environmentally friendly technologies, that are responsive to the longer-term needs of our customers. We believe this strategy will further advance the Company's competitive position, regardless of the market environment.

Results of Operations

The following table summarizes the Company's revenue and operating profit (loss) by operating segment (in millions):

	Years Ended December 31,			% Change	
	2020	2019	2018	2020 vs. 2019	2019 vs. 2018
Revenue:					
Wellbore Technologies	\$ 1,867	\$ 3,214	\$ 3,235	(41.9%)	(0.6%)
Completion & Production Solutions	2,433	2,771	2,931	(12.2%)	(5.5%)
Rig Technologies	1,919	2,682	2,575	(28.4%)	4.2%
Eliminations	(129)	(188)	(288)	(31.4%)	(34.7%)
Total Revenue	<u>\$ 6,090</u>	<u>\$ 8,479</u>	<u>\$ 8,453</u>	<u>(28.2%)</u>	<u>0.3%</u>
Operating Profit (Loss):					
Wellbore Technologies	\$ (858)	\$(3,551)	\$ 131	(75.8%)	(2810.7%)
Completion & Production Solutions	(977)	(1,934)	166	(49.5%)	(1265.1%)
Rig Technologies	(362)	(524)	213	(30.9%)	(346.0%)
Eliminations and corporate costs	(228)	(270)	(299)	(15.6%)	(9.7%)
Total Operating Profit (Loss)	<u>\$(2,425)</u>	<u>\$(6,279)</u>	<u>\$ 211</u>	<u>(61.4%)</u>	<u>(3075.8%)</u>
Operating Profit (Loss)%:					
Wellbore Technologies	(46.0%)	(110.5%)	4.0%		
Completion & Production Solutions	(40.2%)	(69.8%)	5.7%		
Rig Technologies	(18.9%)	(19.5%)	8.3%		
Total Operating Profit (Loss) %	<u>(39.8%)</u>	<u>(74.1%)</u>	<u>2.5%</u>		

Years Ended December 31, 2020 and December 31, 2019

Wellbore Technologies

Revenue from Wellbore Technologies for the year ended December 31, 2020 was \$1,867 million, a decrease of \$1,347 million (-42%) compared to the year ended December 31, 2019.

Operating loss from Wellbore Technologies was \$858 million for the year ended December 31, 2020, an increase of \$2,693 million compared to the year ended December 31, 2019. Operating loss percentage for 2020 was -46.0% compared to an operating loss percentage of -110.5% percent in 2019.

Other Items included in operating loss for Wellbore Technologies were \$849 million for the year ended December 31, 2020 and \$3,794 million for the year ended December 31, 2019.

Completion & Production Solutions

Revenue from Completion & Production Solutions for the year ended December 31, 2020 was \$2,433 million, a decrease of \$338 million (-12%) compared to the year ended December 31, 2019.

Operating loss from Completion & Production Solutions was \$977 million for the year ended December 31, 2020 compared to an operating loss of \$1,934 million for 2019, an increase of \$957 million. Operating loss percentage for 2020 was -40.2% compared to -69.8% in 2019.

Included in operating loss are Other Items related to impairment charges, inventory charges, severance accruals and other charges and credits. Other items included in operating loss for Completion & Production Solutions was \$1,132 million for the year ended December 31, 2020 and \$2,042 million for the year ended December 31, 2019.

The Completion & Production Solutions segment monitors its capital equipment backlog to plan its business. New orders are added to backlog only when the Company receives a firm written order for major completion and production components or a signed contract related to a construction project. The capital equipment backlog was \$695 million at December 31, 2020, a decrease of \$610 million, or 47 percent from backlog of \$1,305 million at December 31, 2019. Numerous factors may affect the timing of revenue out of backlog. Considering these factors, the Company reasonably expects approximately \$621 million of revenue out of backlog in 2021 and approximately \$74 million of revenue out of backlog in 2022 and thereafter. At December 31, 2020, approximately 63 percent of the capital equipment backlog was for offshore products and approximately 88 percent of the capital equipment backlog was destined for international markets.

Rig Technologies

Revenue from Rig Technologies for the year ended December 31, 2020 was \$1,919 million, a decrease of \$763 million (-28%) compared to the year ended December 31, 2019.

Operating loss from Rig Technologies was \$362 million for the year ended December 31, 2020, a decrease of \$162 million compared to 2019. Operating loss percentage for 2020 was -18.9% compared to -19.5% in 2019.

Included in operating loss are Other Items related to severance and facility closures, and asset write-downs. Other Items included in operating loss for Rig Technologies were \$402 million for the year ended December 31, 2020 and \$784 million for the year ended December 31, 2019.

The Rig Technologies segment monitors its capital equipment backlog to plan its business. New orders are added to backlog only when the Company receives a firm written order for major drilling rig components or a signed contract related to a construction project. The capital equipment backlog was \$2.7 billion at December 31, 2020, a decrease of \$325 million, or 11 percent, from backlog of \$3.0 billion at December 31, 2019. Numerous factors may affect the timing of revenue out of backlog. Considering these factors, the Company reasonably expects approximately \$556 million of revenue out of backlog in 2021 and the remaining in 2022 and thereafter. At December 31, 2020, approximately 24% of the capital equipment backlog was for offshore products and approximately 90 percent of the capital equipment backlog was destined for international markets.

Eliminations and corporate costs

Eliminations and corporate costs were \$228 million for the year ended December 31, 2020 compared to \$270 million for the year ended December 31, 2019. This change is primarily due to a decrease in intersegment sales. Sales from one segment to another generally are priced at estimated equivalent commercial selling prices; however, segments originating an external sale are credited with the full profit to the Company. Eliminations and corporate costs include intercompany transactions conducted between the three reporting segments that are eliminated in consolidation, as well as corporate costs not allocated to the segments. Intercompany transactions within each reporting segment are eliminated within each reporting segment.

Other income (expense), net

Other income (expense), net was income of \$17 million for the year ended December 31, 2020 compared to expense of \$90 million for the year ended December 31, 2019. The decrease in expense was primarily due to lower foreign exchange losses for 2020.

Provision for income taxes

The effective tax rate for the year ended December 31, 2020 was 8.7%, compared to 5.7% for 2019. For the year ended December 31, 2020 the effective tax rate was negatively impacted by the impairment of nondeductible goodwill and the establishment of additional valuation allowances for current year losses and other tax attributes, partially offset by the release of valuation allowance as a result of (a) the carryback of \$591 million of US net operating losses from 2019 to 2014 pursuant to the Coronavirus Aid, Relief, and Economy Security Act (CARES Act) and (b) the filing of an amended US tax return to deduct foreign tax credits and carryback the resulting \$287 million US net operating loss from 2016 to 2014. For the year ended December 31, 2019, the effective tax rate was negatively impacted by the impairment of nondeductible goodwill and the establishment of additional valuation allowance partially offset by the reduction in uncertain tax positions due to settlements.

Refer to our 2019 Form 10-K for discussion of 2019 versus 2018.

Non-GAAP Financial Measures and Reconciliations

The Company discloses Adjusted EBITDA (defined as Operating Profit excluding Depreciation, Amortization and, when applicable, Other Items) in its periodic earnings press releases and other public disclosures to provide investors additional information about the results of ongoing operations. The Company uses Adjusted EBITDA internally to evaluate and manage the business. Adjusted EBITDA is not intended to replace GAAP financial measures, such as Net Income.

Other items consist of (in millions):

	Three Months Ended			Years Ended	
	December 31,		September 30,	December 31,	
	2020	2019	2020	2020	2019
Other items by category:					
Goodwill	\$ —	\$ 410	\$ —	\$ 1,295	\$ 3,509
Identified intangibles	—	16	—	292	2,004
Inventory charges	174	63	20	326	633
Long-lived assets	—	10	—	304	309
Voluntary early retirement program	—	(3)	—	—	84
Severance, facility closures and other	62	41	42	206	92
Total other items	<u>\$ 236</u>	<u>\$ 537</u>	<u>\$ 62</u>	<u>\$ 2,423</u>	<u>\$ 6,631</u>

The following tables set forth the reconciliation of Adjusted EBITDA to its most comparable GAAP financial measure (in millions):

	Three Months Ended			Years Ended	
	December 31,		September 30,	December 31,	
	2020	2019	2020	2020	2019
Operating profit (loss):					
Wellbore Technologies	\$ (78)	\$ (317)	\$ (50)	\$ (858)	\$ (3,551)
Completion & Production Solutions	(31)	57	25	(977)	(1,934)
Rig Technologies	(132)	(23)	(3)	(362)	(524)
Eliminations and corporate costs	(60)	(66)	(46)	(228)	(270)
Total operating profit (loss)	\$ (301)	\$ (349)	\$ (74)	\$ (2,425)	\$ (6,279)
Other Items:					
Wellbore Technologies	\$ 46	\$ 410	\$ 26	\$ 849	\$ 3,794
Completion & Production Solutions	43	13	23	1,132	2,042
Rig Technologies	132	114	12	402	784
Corporate	15	—	1	40	11
Total Other Items	\$ 236	\$ 537	\$ 62	\$ 2,423	\$ 6,631
Depreciation & amortization:					
Wellbore Technologies	\$ 44	\$ 50	\$ 45	\$ 187	\$ 284
Completion & Production Solutions	16	26	15	75	150
Rig Technologies	19	21	19	77	87
Corporate	3	3	4	13	12
Total depreciation & amortization	\$ 82	\$ 100	\$ 83	\$ 352	\$ 533
Adjusted EBITDA:					
Wellbore Technologies	\$ 12	\$ 143	\$ 21	\$ 178	\$ 527
Completion & Production Solutions	28	96	63	230	258
Rig Technologies	19	112	28	117	347
Eliminations and corporate costs	(42)	(63)	(41)	(175)	(247)
Total Adjusted EBITDA	\$ 17	\$ 288	\$ 71	\$ 350	\$ 885
Reconciliation of Adjusted EBITDA:					
GAAP net income (loss) attributable to Company	\$ (347)	\$ (385)	\$ (55)	\$ (2,542)	\$ (6,095)
Noncontrolling interests	(1)	—	2	5	2
Provision (benefit) for income taxes	22	(46)	(61)	(242)	(369)
Interest expense	19	25	21	84	100
Interest income	(2)	(4)	—	(7)	(20)
Equity loss in unconsolidated affiliate	10	7	11	260	13
Other (income) expense, net	(2)	54	8	17	90
Depreciation and amortization	82	100	83	352	533
Other Items	236	537	62	2,423	6,631
Total Adjusted EBITDA	\$ 17	\$ 288	\$ 71	\$ 350	\$ 885

Liquidity and Capital Resources

At December 31, 2020, the Company had cash and cash equivalents of \$1,692 million, and total debt of \$1,834 million. At December 31, 2019, cash and cash equivalents were \$1,171 million and total debt was \$1,989 million. As of December 31, 2020, approximately \$1,037 million of the \$1,692 million of cash and cash equivalents was held by our foreign subsidiaries and the earnings associated with this cash could be subject to foreign withholding taxes and incremental U.S. taxation. If opportunities to invest in the U.S. are greater than available cash balances that are not subject to income tax, rather than repatriating cash, the Company may choose to borrow against its revolving credit facility.

The Company has a \$2.0 billion, five-year unsecured revolving credit facility, which expires on October 30, 2024. The Company has the right to increase the commitments under this agreement to an aggregate amount of up to \$3.0 billion upon the consent of only those lenders holding any such increase. Interest under the multicurrency facility is based upon LIBOR, NIBOR or CDOR plus 1.125% subject to a ratings-based grid or the U.S. prime rate. The credit facility contains a financial covenant regarding maximum debt-to-capitalization ratio of 60%. As of December 31, 2020, the Company was in compliance with a debt-to-capitalization ratio of 28.4% and had no outstanding letters of credit issued under the facility, resulting in \$2.0 billion of available funds.

The Company also has a \$150 million bank line of credit for the construction of a facility in Saudi Arabia. Interest under the bank line of credit is based upon LIBOR plus 1.40%. The bank line of credit contains a financial covenant regarding maximum debt-to-equity ratio of 75%. As of December 31, 2020, the Company was in compliance.

On August 25, 2020, the Company completed a cash tender offer for \$217.3 million of its 2.60% unsecured Senior Notes using available cash balances. The Company paid \$226 million, which included a redemption premium of \$7.6 million as well as accrued and unpaid interest of \$1.3 million. As a result of the redemption, the Company recorded a loss on extinguishment of debt of \$8.2 million, which included the redemption premium of \$7.6 million and non-cash charges of \$0.6 million attributable to the write-off of unamortized discount and debt issuance costs.

The Company's outstanding debt at December 31, 2020 was \$1,834 million and consisted of \$182 million in 2.60% Senior Notes, \$493 million in 3.60% Senior Notes, \$1,089 million in 3.95% Senior Notes, no commercial paper borrowings, and other debt of \$70 million. The Company was in compliance with all covenants at December 31, 2020.

The Company had \$446 million of outstanding letters of credit at December 31, 2020 that are under various bilateral letter of credit facilities. Letters of credit are issued as bid bonds, advanced payment bonds and performance bonds

The following table summarizes our net cash provided by operating activities, net cash used in investing activities and net cash used in financing activities for the periods presented (in millions):

	Years Ended December 31,		
	2020	2019	2018
Net cash provided by operating activities	\$ 926	\$ 714	\$ 521
Net cash used in investing activities	(144)	(315)	(457)
Net cash used in financing activities	(259)	(647)	(30)

Significant sources and uses of cash during 2020

- Cash flows provided by operating activities was \$926 million. This included changes in the primary components of our working capital (receivables, inventories, and accounts payable), primarily related to strong collections on accounts receivable.
- Capital expenditures were \$226 million.
- We paid \$19 million in dividends to our shareholders.

Oil and Gas Market Downturn and COVID-19 Pandemic

Since the oil and gas market downturn began in late 2014, the Company has maintained a continuous process of actively managing its strategy, structure and resources to the changing market conditions and new realities. The Company has closed or realigned hundreds of facilities, reduced headcount, sharply lowered costs and reviewed all product lines for acceptable returns in the evolved market. Additionally, the Company has proactively reduced the balances and extended the maturity profile of its debt. In the fall of 2019, the Company retired \$1 billion of notes due 2022 for cash, issued \$500 million of notes due 2029 and extended the maturity of its undrawn credit facility to 2024.

In August 2020, the Company completed a tender on \$217 million of the remaining 2022 notes, further reducing its amount of debt outstanding. While aggressively matching size and spend to the market, and protecting its balance sheet, the Company has continued investing in new products and technologies that enable its customers to improve their operational efficiencies.

When the COVID-19 global pandemic and OPEC+ actions further depressed oil prices and industry activity beginning in March of 2020, the Company's prior prudent actions helped ensure adequate available resources. Management intends to continue managing the business to the market realities to ensure the Company's access to capital remains sufficient. See Item 1A Risk Factors.

Other

The effect of the change in exchange rates on cash was a decrease of (\$2) million, (\$8) million and (\$44) million for the years ended December 31, 2020, 2019 and 2018, respectively.

We believe that cash on hand, cash generated from operations and amounts available under our credit facilities and from other sources of debt will be sufficient to fund operations, working capital needs, capital expenditure requirements, dividends and financing obligations.

We intend to pursue additional acquisition candidates, but the timing, size or success of any acquisition effort and the related potential capital commitments cannot be predicted. We continue to expect to fund future cash acquisitions primarily with cash flow from operations and borrowings, including the unborrowed portion of the revolving credit facility or new debt issuances, but may also issue additional equity either directly or in connection with acquisitions. There can be no assurance that additional financing for acquisitions will be available at terms acceptable to us.

As of December 31, 2020, the Company had \$57 million of unrecognized tax benefits. This represents the tax benefits associated with various tax positions taken, or expected to be taken, on domestic and international tax returns that have not been recognized in our financial statements due to uncertainty regarding their resolution. Due to the uncertainty of the timing of future cash flows associated with these unrecognized tax benefits, we are unable to make reasonably reliable estimates of the period of cash settlement, if any, with the respective taxing authorities. For further information related to unrecognized tax benefits, see Note 15 to the Consolidated Financial Statements.

Critical Accounting Policies and Estimates

In preparing the financial statements, we make assumptions, estimates and judgements that affect the amounts reported. We periodically evaluate our estimates and judgements that are most critical in nature which are related to revenue recognition under long-term construction contracts; allowance for doubtful accounts; inventory reserves; impairments of long-lived assets (excluding goodwill and other indefinite-lived intangible assets); impairment of goodwill and other indefinite-lived intangible assets; purchase price allocation of acquisitions; service and product warranties and income taxes. Our estimates are based on historical experience and on our future expectations that we believe are reasonable. The combination of these factors forms the basis for making judgements about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results are likely to differ from our current estimates and those differences may be material.

Revenue Recognition

The majority of the Company's revenue streams record revenue at a point in time when a performance obligation has been satisfied by transferring control of promised goods or services to a customer. Products and services are sold or rented based upon a fixed or determinable price and do not generally include significant post-delivery obligations. Payment terms and conditions vary by contract type. We have elected to apply the practical expedient that does not require an adjustment for a financing component if, at contract inception, the period between when we transfer the promised goods or service to the customer and when the customer pays for the goods or service is one year or less. Shipping and handling costs are recognized when incurred and are treated as costs to fulfill the original performance obligation.

Revenue is often generated from contracts that include multiple performance obligations. Using significant judgement, the Company considers the degree of customization, integration and interdependency of the related products and

services when assessing distinct performance obligations within one contract. Stand-alone selling price (“SSP”) for each distinct performance obligation is generally determined using the price at which the products and services would be sold separately to the customer. Discounts, when provided, are allocated based on the relative SSP of the various products and services.

For revenue that is not recognized at a point in time, the Company follows accounting guidance for revenue recognized over time, as follows:

Revenue Recognition under Long-term Construction Contracts

Revenue is recognized over-time for certain long-term construction contracts in the Completion & Production Solutions and Rig Technologies segments. These contracts include custom designs for customer-specific applications that are unique and require significant engineering efforts. Revenue is recognized as work progresses on each contract. Right to payment is enforceable for performance completed to date, including a reasonable profit.

We generally use the cost-to-cost (input) measure of progress for our contracts because it best depicts the transfer of assets to the customer which occurs as we incur costs. Under the cost-to-cost measure of progress, progress towards completion of each contract is measured based on the ratio of costs incurred to date to the total estimated costs at completion of the performance obligation. Revenues, including estimated fees or profits, are recorded proportionally as costs are incurred. These costs include labor, materials, subcontractors’ costs, and other direct costs. Any expected losses on a project are recorded in full in the period in which the loss becomes probable.

These long-term construction contracts generally include a significant service of integrating a complex set of tasks and components into a single project or capability, so are accounted for as one performance obligation.

Estimating total revenue and cost at completion of long-term construction contracts is complex, subject to many variables and requires significant judgement. It is common for our long-term contracts to contain late delivery fees, work performance guarantees, and other provisions that can either increase or decrease the transaction price. We estimate variable consideration as the most likely amount we expect to receive. We include variable consideration in the estimated transaction price to the extent it is probable that a significant reversal of cumulative revenue recognized will not occur, or when the uncertainty associated with the variable consideration is resolved. Our estimates of variable consideration and determination of whether to include estimated amounts in the transaction price are based on an assessment of our anticipated performance and historical, current and forecasted information that is reasonably available to us. Net revenue recognized from performance obligations satisfied in previous periods was \$41 million for the year ended December 31, 2020 primarily due to change orders.

Service and Repair Work

For service and repair contracts, revenue is recognized over time. We generally use the output method to measure progress on service contracts due to the manner in which the customer receives and derives value from the services provided. For repair contracts, we generally use the cost-to-cost measure of progress because it best depicts the transfer of assets to the customer.

Remaining Performance Obligations

Remaining performance obligations represent the transaction price of firm orders for all revenue streams for which work has not been performed on contracts with an original expected duration of one year or more. We do not disclose the remaining performance obligations of royalty contracts, service contracts for which there is a right to invoice, and short-term contracts that are expected to have a duration of one year or less.

As of December 31, 2020, the aggregate amount of the transaction price allocated to remaining performance obligations was \$3,693 million. The Company expects to recognize approximately \$905 million in revenue for the remaining performance obligations in 2021 and \$2,788 million in 2022 and thereafter.

Costs to Obtain and Fulfill a Contract

We recognize an asset for the incremental costs of obtaining a contract, such as sales commissions, with a customer when we expect the benefit of those costs to be longer than one year. Costs to fulfill a contract, such as set-up and

mobilization costs, are also capitalized when we expect to recover those costs. These contract costs are deferred and amortized over the period of contract performance. Total capitalized costs to obtain and fulfill a contract and the related amortization were immaterial during the periods presented and are included in other current and long-term assets on our consolidated balance sheets. We apply the practical expedient to expense costs as incurred for costs to obtain a contract with a customer when the amortization period would have been one year or less.

Inventory Reserves

Inventory is carried at the lower of cost or estimated net realizable value. The Company reviews historical usage of inventory on-hand, assumptions about future demand and market conditions, current cost and estimates about potential alternative uses, which are limited, to estimate net realizable value. The Company's inventory consists of finished goods, spare parts, work in process, and raw materials to support ongoing manufacturing operations and the Company's large installed base of highly specialized oilfield equipment. The Company's estimated carrying value of inventory depends upon demand largely driven by levels of oil and gas well drilling and remediation activity, which depends in turn upon oil and gas prices, the general outlook for economic growth worldwide, available financing for the Company's customers, political stability and governmental regulation in major oil and gas producing areas, and the potential obsolescence of various types of equipment we sell, among other factors.

Based on an update of our assumptions at each point in time related to estimates of future demand, during 2020, 2019, and 2018 we recorded charges for additions to inventory reserves of \$367 million, \$659 million, and \$49 million, respectively, consisting primarily of obsolete and surplus inventories. At December 31, 2020 and 2019, inventory reserves totaled \$577 million and \$843 million, or 29.1% and 27.7% of gross inventory, respectively.

Throughout the downturn the Company has continued to invest in developing and advancing products and technologies, contributing to the obsolescence of certain older products in a dramatically-shifted and more highly competitive recovering market, but also ensuring that the portfolio of products and services offered by the Company will meet customer needs in 2021 and beyond.

We will continue to assess our inventory levels and inventory offerings for our customers, which could require the Company to record additional allowances to reduce the value of its inventory. Such changes in our estimates or assumptions could be material under weaker market conditions or outlook.

Impairment of Long-Lived Assets (Excluding Goodwill and Other Indefinite-Lived Intangible Assets)

Long-lived assets, which include property, plant and equipment and identified intangible assets, comprise a significant amount of the Company's total assets. The Company makes judgements and estimates in conjunction with the carrying value of these assets, including amounts to be capitalized, depreciation and amortization methods and estimated useful lives.

The carrying values of these assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amounts may not be recoverable. An impairment loss is recorded in the period in which it is determined that the carrying amount is not recoverable based on estimated future undiscounted cash flows. We estimate the fair value of these intangible and fixed assets using an income approach. This requires the Company to make long-term forecasts of its future revenues and costs related to the assets subject to review. These forecasts require assumptions about demand for the Company's products and services, future market conditions and technological developments. The forecasts are dependent upon assumptions regarding oil and gas prices, the general outlook for economic growth worldwide, available financing for the Company's customers, political stability in major oil and gas producing areas, and the potential obsolescence of various types of equipment we sell, among other factors. The financial and credit market volatility directly impacts our fair value measurement through our income forecast. Changes to these assumptions, including, but not limited to: sustained declines in worldwide rig counts below current analysts' forecasts, collapse of spot and futures prices for oil and gas, significant deterioration of external financing for our customers, higher risk premiums or higher cost of equity, or any other significant adverse economic news could require a provision for impairment in a future period.

For the year ended December 31, 2020, the Company recorded \$513 million in impairment charges related to long-lived assets. See Note 6 – Asset Impairments (Part IV, Item 15 of this Form 10-K) for further discussion.

Goodwill and Other Indefinite-Lived Intangible Assets

The Company has approximately \$1.5 billion of goodwill and \$0.2 billion of other intangible assets with indefinite lives as of December 31, 2020. Generally accepted accounting principles require the Company to test goodwill and other indefinite-lived intangible assets for impairment at least annually or more frequently whenever events or circumstances occur indicating that goodwill or other indefinite-lived intangible assets might be impaired. Events or circumstances which could indicate a potential impairment include (but are not limited to) a significant sustained reduction in worldwide oil and gas prices or drilling; a significant sustained reduction in profitability or cash flow of oil and gas companies or drilling contractors; a sustained reduction in the market capitalization of the Company; a significant sustained reduction in capital investment by drilling companies and oil and gas companies; or a significant sustained increase in worldwide inventories of oil or gas.

The Company performs its goodwill and indefinite-lived intangible asset impairment test based on the Company's discounted cash flow analysis. The discounted cash flow is based on management's forecast of operating performance for each reporting unit. The two main assumptions used in measuring goodwill impairment, which bear the risk of change and could impact the Company's goodwill impairment analysis, include the cash flow from operations from each of the Company's individual Reporting Units and the weighted average cost of capital. The starting point for each of the reporting unit's cash flow from operations is the detailed annual plan or updated forecast. Cash flows beyond the specific operating plans were estimated using a terminal value calculation, which incorporated historical and forecasted financial cyclical trends for each reporting unit and considered long-term earnings growth rates. The financial and credit market volatility directly impacts our fair value measurement through our weighted average cost of capital that we use to determine our discount rate. During times of volatility, significant judgement must be applied to determine whether credit changes are a short-term or long-term trend.

While the Company primarily uses the discounted cash flow method to assess fair value, the Company uses the comparable companies and representative transaction methods to validate the discounted cash flow analysis and further support management's expectations, where possible. The valuation techniques used in the annual test were consistent with those used during previous testing. The inputs used in the annual test were updated for current market conditions and forecasts.

For the year ended December 31, 2019, the Company recorded \$3,509 million in impairment charges to goodwill and \$103 million in charges to indefinite-lived intangible assets. For the year ended December 31, 2020, the Company recorded a \$1,295 million in impairment charges to goodwill and \$83 million in charges to indefinite-lived intangible assets. See Note 6 – Asset Impairments (Part IV, Item 15 of this Form 10-K) for further discussion.

Income Taxes

The Company is U.S. registered and is subject to income taxes in the U.S. The Company operates through various subsidiaries in a number of countries throughout the world. Income taxes have been recorded based upon the tax laws and rates of the countries in which the Company operates and income is earned.

The Company's annual tax provision is based on taxable income, statutory rates and tax planning opportunities available in the various jurisdictions in which it operates. The determination and evaluation of the annual tax provision and tax positions involves the interpretation of the tax laws in the various jurisdictions in which the Company operates. It requires significant judgement and the use of estimates and assumptions regarding significant future events such as the amount, timing and character of income, deductions and tax credits. Changes in tax laws, regulations, and treaties, foreign currency exchange restrictions or the Company's level of operations or profitability in each jurisdiction could impact the tax liability in any given year. The Company also operates in many jurisdictions where the tax laws relating to the pricing of transactions between related parties are open to interpretation, which could potentially result in aggressive tax authorities asserting additional tax liabilities with no offsetting tax recovery in other countries.

The Company maintains liabilities for estimated tax exposures in jurisdictions of operation. The annual tax provision includes the impact of income tax provisions and benefits for changes to liabilities that the Company considers appropriate, as well as related interest. Tax exposure items primarily include potential challenges to intercompany pricing and certain operating expenses that may not be deductible in foreign jurisdictions. These exposures are resolved primarily through the settlement of audits within these tax jurisdictions or by judicial means. The Company is subject to audits by federal, state and foreign jurisdictions which may result in proposed assessments. The Company believes that an appropriate liability has been established for estimated exposures under the guidance in ASC Topic 740 "Income Taxes" ("ASC Topic 740"). However, actual results may differ materially from these estimates. The

Company reviews these liabilities quarterly and to the extent audits or other events result in an adjustment to the liability accrued for a prior year, the effect will be recognized in the period of the event.

The Company currently has recorded valuation allowances that the Company intends to maintain until it is more likely than not the deferred tax assets will be realized. Income tax expense recorded in the future will be reduced to the extent of decreases in the Company's valuation allowances. The realization of remaining deferred tax assets is primarily dependent on future taxable income. Any reduction in future taxable income including but not limited to any future restructuring activities may require that the Company record an additional valuation allowance against deferred tax assets. An increase in the valuation allowance would result in additional income tax expense in such period and could have a significant impact on future earnings.

After considering the impact of losses incurred in 2020, the Company has determined that it no longer has net undistributed earnings subject to a permanent reinvestment assertion.

Recently Issued and Recently Adopted Accounting Standards

See Note 2 – Summary of Significant Accounting Policies (Part IV, Item 15 of this Form 10-K) for further discussion.

Forward-Looking Statements

Some of the information in this document contains, or has incorporated by reference, forward-looking statements. Statements that are not historical facts, including statements about our beliefs and expectations, are forward-looking statements. Forward-looking statements typically are identified by use of terms such as “may,” “will,” “expect,” “anticipate,” “estimate,” and similar words, although some forward-looking statements are expressed differently. All statements herein regarding expected merger synergies are forward looking statements. You should be aware that our actual results could differ materially from results anticipated in the forward-looking statements due to a number of factors, including but not limited to changes in oil and gas prices, customer demand for our products and worldwide economic activity. You should also consider carefully the statements under “Risk Factors” which address additional factors that could cause our actual results to differ from those set forth in the forward-looking statements. Given these uncertainties, current or prospective investors are cautioned not to place undue reliance on any such forward-looking statements. We undertake no obligation to update any such factors or forward-looking statements to reflect future events or developments.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to changes in foreign currency exchange rates and interest rates. Additional information concerning each of these matters follows:

Foreign Currency Exchange Rates

We have extensive operations in foreign countries. The net assets and liabilities of these operations are exposed to changes in foreign currency exchange rates, although such fluctuations generally do not affect income since their functional currency is typically the local currency. These operations also have net assets and liabilities not denominated in the functional currency, which exposes us to changes in foreign currency exchange rates that impact income. During the years ended December 31, 2020, 2019 and 2018, the Company reported foreign currency losses of \$2 million, \$36 million and \$52 million, respectively. Gains and losses are primarily due to exchange rate fluctuations related to monetary asset balances denominated in currencies other than the functional currency and adjustments to our hedged positions as a result of changes in foreign currency exchange rates. Currency fluctuations may create losses in future periods to the extent we maintain net assets and liabilities not denominated in the functional currency of our subsidiaries using the local currency as their functional currency.

Some of our revenues in foreign countries are denominated in U.S. dollars, and therefore, changes in foreign currency exchange rates impact our earnings to the extent that costs associated with those U.S. dollar revenues are denominated in the local currency. Similarly, some of our revenues are denominated in foreign currencies, but have associated U.S. dollar costs, which also give rise to foreign currency exchange rate exposure. In order to mitigate that risk, we may utilize foreign currency forward contracts to better match the currency of our revenues and associated costs. We do not use foreign currency forward contracts for trading or speculative purposes.

The Company had other financial market risk sensitive instruments (cash balances, overdraft facilities, accounts receivable and accounts payable) denominated in foreign currencies with transactional exposures totaling \$509 million and translation exposures totaling \$291 million as of December 31, 2020. The Company estimates that a hypothetical 10% movement of all applicable foreign currency exchange rates on the transactional exposures could affect net income by \$40 million and the translational exposures could affect Other Comprehensive Income by \$29 million.

The counterparties to forward contracts are major financial institutions. The credit ratings and concentration of risk of these financial institutions are monitored on a continuing basis. In the event that the counterparties fail to meet the terms of a foreign currency contract, our exposure is limited to the foreign currency rate differential.

Interest Rate Risk

At December 31, 2020, long term borrowings consisted of \$1,089 million in 3.95% Senior Notes, \$493 million in 3.60% Senior Notes and \$182 million in 2.60% Senior Notes, no commercial paper borrowings and no borrowings against our revolving credit facility. Occasionally a portion of borrowings under our credit facility could be denominated in multiple currencies which could expose us to market risk with exchange rate movements. These instruments carry interest at a pre-agreed upon percentage point spread from either LIBOR, NIBOR or CDOR, or at the U.S. prime rate. Under our credit facility, we may, at our option, fix the interest rate for certain borrowings based on a spread over LIBOR, NIBOR or CDOR for 30 days to six months. Our objective is to maintain a portion of our debt in variable rate borrowings for the flexibility obtained regarding early repayment without penalties and lower overall cost as compared with fixed-rate borrowings.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Attached hereto and a part of this report are financial statements and supplementary data listed in Item 15. "Exhibits and Financial Statement Schedules."

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

None.

ITEM 9A. CONTROLS AND PROCEDURES

(i) Evaluation of disclosure controls and procedures

As required by SEC Rule 13a-15(b), we have evaluated, under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) as of the end of the period covered by this report. Our disclosure controls and procedures are designed to provide reasonable assurance that the information required to be disclosed by the Company in reports that it files under the Exchange Act is accumulated and communicated to the Company's management, including our principal executive officer and principal financial officer, as appropriate, to allow timely decisions regarding required disclosure and is recorded, processed, summarized and reported within the time periods specified in the rules and forms of the SEC. Our principal executive officer and principal financial officer have concluded that our current disclosure controls and procedures were effective as of December 31, 2020 at the reasonable assurance level.

Pursuant to section 302 of the Sarbanes-Oxley Act of 2002, our Chief Executive Officer and Chief Financial Officer have provided certain certifications to the Securities and Exchange Commission. These certifications are included herein as Exhibits 31.1 and 31.2.

(ii) Internal Control Over Financial Reporting

(a) Management's annual report on internal control over financial reporting.

The Company's management report on internal control over financial reporting is set forth in this annual report on Page 55 and is incorporated herein by reference.

(b) Changes in internal control

There were no changes in the Company's internal control over financial reporting that occurred during the Company's last fiscal quarter covered by this report that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Incorporated by reference to the definitive Proxy Statement for the 2020 Annual Meeting of Stockholders.

ITEM 11. EXECUTIVE COMPENSATION

Incorporated by reference to the definitive Proxy Statement for the 2020 Annual Meeting of Stockholders.

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

Incorporated by reference to the definitive Proxy Statement for the 2020 Annual Meeting of Stockholders.

Securities Authorized for Issuance Under Equity Compensation Plans.

The following table sets forth information as of our fiscal year ended December 31, 2020, with respect to compensation plans under which our common stock may be issued:

Plan Category	Number of securities to be issued upon exercise of warrants and rights (a)	Weighted-average exercise price of outstanding rights (b)	Number of securities remaining available for equity compensation plans (excluding securities reflected in column (a)) ('c') (1)
Equity compensation plans approved by security holders	21,005,502	\$ 49.25	10,521,344
Equity compensation plans not approved by security holders	—	—	—
Total	<u>21,005,502</u>	<u>\$ 49.25</u>	<u>10,521,344</u>

(1) Shares could be issued through equity instruments other than stock options, warrants or rights.

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

Incorporated by reference to the definitive Proxy Statement for the 2020 Annual Meeting of Stockholders.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

Incorporated by reference to the definitive Proxy Statement for the 2020 Annual Meeting of Stockholders.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

Financial Statements and Exhibits

(1) Financial Statements

The following financial statements are presented in response to Part II, Item 8:

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Consolidated Balance Sheets	61
Consolidated Statements of Income (Loss)	62
Consolidated Statements of Comprehensive Income (Loss)	63
Consolidated Statements of Cash Flows	64
Consolidated Statements of Stockholders' Equity	65
Notes to Consolidated Financial Statements	66

(2) Financial Statement Schedule

Schedule II – Valuation and Qualifying Accounts	96
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All schedules, other than Schedule II, are omitted because they are not applicable, not required or the information is included in the financial statements or notes thereto.

(3) Exhibits

3.1	Sixth Amended and Restated Certificate of Incorporation of NOV Inc. (Exhibit 3.1) (1)
3.2	Amended and Restated By-laws of NOV Inc. (Exhibit 3.2) (1)
4.1	Description of Securities
10.1	Credit Agreement, dated as of June 27, 2017, among National Oilwell Varco, Inc., the financial institutions signatory thereto, including Wells Fargo Bank, N.A., in its capacity, among others, as Administrative Agent, Co-Lead Arranger and Joint Book Runner (Exhibit 3.1)(2)
10.2	Amendment No. 1 to Credit Agreement, dated as of October 30, 2019 (3)
10.3	National Oilwell Varco, Inc. 2018 Long-Term Incentive Plan, as amended and restated. (4)*
10.4	Form of Employee Stock Option Agreement. (Exhibit 10.1) (5)
10.5	Form of Non-Employee Director Stock Option Agreement. (Exhibit 10.2) (5)
10.6	Form of Performance-Based Restricted Stock. (18 Month) Agreement (Exhibit 10.1) (6)
10.7	Form of Performance-Based Restricted Stock. (36 Month) Agreement (Exhibit 10.2) (6)
10.8	Form of Performance Award Agreement (Exhibit 10.1) (7)
10.9	Form of Executive Employment Agreement. (Exhibit 10.1) (8)
10.10	Form of Executive Severance Agreement. (Exhibit 10.2) (9)
10.11	Form of Employee Nonqualified Stock Option Grant Agreement (10)
10.12	Form of Restricted Stock Agreement (10)
10.13	Form of Performance Award Agreement (10)
10.14	Form of Employee Nonqualified Stock Option Grant Agreement (2019) (11)
10.15	Form on Restricted Stock Agreement (2019) (11)

10.16	Form of Performance Award Agreement (2019) (11)
10.17	Form of Performance Award Agreement (2020) (12)
21.1	Subsidiaries of the Registrant
23.1	Consent of Ernst & Young LLP.
24.1	Power of Attorney. (included on signature page hereto)
31.1	Certification pursuant to Rule 13a-14a and Rule 15d-14(a) of the Securities and Exchange Act, as amended.
31.2	Certification pursuant to Rule 13a-14a and Rule 15d-14(a) of the Securities and Exchange Act, as amended.
32.1	Certification pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
95	Mine Safety Information pursuant to section 1503 of the Dodd-Frank Act.
101.INS	Inline XBRL Instance Document – the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.
101.SCH	Inline XBRL Taxonomy Extension Schema Document
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File (formatted as inline XBRL and contained in Exhibit 101)

* Compensatory plan or arrangement for management or others.

- (1) Filed as an Exhibit to our Current Report on Form 8-K filed on December 22, 2020.
- (2) Filed as an Exhibit to our Current Report on Form 8-K filed on June 28, 2017
- (3) Filed as an Exhibit to our Current Report on Form 8-K filed on November 4, 2019.
- (4) Filed as Appendix I to our Proxy Statement filed on April 9, 2020.
- (5) Filed as an Exhibit to our Current Report on Form 8-K filed on February 23, 2006.
- (6) Filed as an Exhibit to our Current Report on Form 8-K filed on March 27, 2007.
- (7) Filed as an Exhibit to our Current Report on Form 8-K filed on March 27, 2013.
- (8) Filed as an Exhibit to our Current Report on Form 8-K filed on December 4, 2020.
- (9) Filed as an Exhibit to our Current Report on Form S-K filed on November 21, 2014.
- (10) Filed as an Exhibit to our Current Report on Form 8-K filed on February 26, 2016.
- (11) Filed as an Exhibit to our Quarterly Report on Form 10-Q filed on April 26, 2019.
- (12) Filed as an Exhibit to our Quarterly Report on Form 10-Q filed on April 28, 2020.

We hereby undertake, pursuant to Regulation S-K, Item 601(b), paragraph (4) (iii), to furnish to the U.S. Securities and Exchange Commission, upon request, all constituent instruments defining the rights of holders of our long-term debt not filed herewith.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

NOV INC.

Dated: February 12, 2021

By: /s/ CLAY C. WILLIAMS

Clay C. Williams
Chairman, President and Chief Executive Officer

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

Each person whose signature appears below in so signing, constitutes and appoints Clay C. Williams and Jose A. Bayardo, and each of them acting alone, his/her true and lawful attorney-in-fact and agent, with full power of substitution, for him/her and in his/her name, place and stead, in any and all capacities, to execute and cause to be filed with the Securities and Exchange Commission any and all amendments to this report, and in each case to file the same, with all exhibits thereto and other documents in connection therewith, and hereby ratifies and confirms all that said attorney-in-fact or his/her substitute or substitutes may do or cause to be done by virtue hereof.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
/s/ CLAY C. WILLIAMS Clay C. Williams	Chairman, President and Chief Executive Officer	February 12, 2021
/s/ JOSE A. BAYARDO Jose A. Bayardo	Senior Vice President and Chief Financial Officer	February 12, 2021
/s/ SCOTT K. DUFF Scott K. Duff	Vice President, Corporate Controller and Chief Accounting Officer	February 12, 2021
/s/ GREG L. ARMSTRONG Greg L. Armstrong	Director	February 12, 2021
/s/ MARCELA E. DONADIO Marcela E. Donadio	Director	February 12, 2021
/s/ BEN A. GUILL Ben A. Guill	Director	February 12, 2021
/s/ JAMES T. HACKETT James T. Hackett	Director	February 12, 2021
/s/ DAVID D. HARRISON David D. Harrison	Director	February 12, 2021
/s/ ERIC L. MATTSON Eric L. Mattson	Director	February 12, 2021
/s/ MELODY B. MEYER Melody B. Meyer	Director	February 12, 2021
/s/ WILLIAM R. THOMAS William R. Thomas	Director	February 12, 2021

MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

NOV Inc.'s management is responsible for establishing and maintaining adequate internal control over financial reporting. NOV Inc.'s internal control system was 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.

Internal control over financial reporting cannot provide absolute assurance of achieving financial reporting objectives because of its inherent limitations. Internal control over financial reporting is a process that involves human diligence and compliance and is subject to lapses in judgement and breakdowns resulting from human failures. Internal control over financial reporting also can be circumvented by collusion or improper management override. Because of such limitations, there is a risk that material misstatements may not be prevented or detected on a timely basis by internal control over financial reporting. However, these inherent limitations are known features of the financial reporting process. Therefore, it is possible to design into the process safeguards to reduce, though not eliminate, this risk.

Management has used the 2013 framework set forth in the report entitled "Internal Control—Integrated Framework" published by the Committee of Sponsoring Organizations ("COSO") of the Treadway Commission to evaluate the effectiveness of the Company's internal control over financial reporting. Management has concluded that the Company's internal control over financial reporting was effective as of December 31, 2020.

The effectiveness of our internal control over financial reporting as of December 31, 2020, has been audited by Ernst & Young LLP, the independent registered public accounting firm which also has audited the Company's Consolidated Financial Statements included in this Annual Report on Form 10-K.

/s/ Clay C. Williams

Clay C. Williams
Chairman, President and Chief Executive Officer

/s/ Jose A. Bayardo

Jose A. Bayardo
Senior Vice President and Chief Financial Officer

Houston, Texas
February 12, 2021

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and the Board of Directors of NOV Inc.

Opinion on Internal Control over Financial Reporting

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

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the 2020 consolidated financial statements of the Company and our report dated February 12, 2021, expressed an unqualified opinion thereon.

Basis for Opinion

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

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

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

Definition and Limitations of Internal Control over Financial Reporting

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

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

/s/ Ernst & Young LLP

Houston, Texas
February 12, 2021

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and the Board of Directors of NOV Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of NOV Inc. (the Company) as of December 31, 2020 and 2019, the related consolidated statements of income (loss), comprehensive income (loss), stockholders' equity and cash flows for each of the three years in the period ended December 31, 2020, and the related notes and financial statement schedule listed in the Index at Item 15(2) (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2020 and 2019, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2020, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2020, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated February 12, 2021, expressed an unqualified opinion thereon.

Basis for Opinion

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

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

Critical Audit Matters

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

Valuation of Goodwill and Indefinite lived intangibles

Description of the Matter At December 31, 2020, the Company's goodwill was \$1,493 million and tradenames with indefinite lives was \$196 million. As discussed in Note 6 to the consolidated financial statements, goodwill and indefinite lived intangibles are tested by the Company's management for impairment at least annually, in the fourth quarter, unless there are indications of impairment at other points throughout the year. Goodwill is tested for impairment at the reporting unit level. During 2020, the Company recorded \$1,295 million of impairment charges to goodwill and \$83 million of impairment charges to indefinite-lived intangible assets.

Auditing management's impairment tests for goodwill and tradenames with indefinite lives is complex and involved subjective auditor judgment and the involvement of a valuation specialist due to the significant estimation required to determine the fair value of the reporting units and tradenames with indefinite lives. In particular, the fair value estimates of reporting units with fair values that do not significantly exceed their carrying values are sensitive to assumptions such as changes in projected cash flows, weighted average cost of capital, and terminal growth rates. The fair value estimates of tradenames with indefinite lives are sensitive to assumptions such as projected cash flows, discount rates and royalty rates. All of these assumptions are sensitive to and affected by expected future market or economic conditions, and industry and company-specific qualitative factors.

How We Addressed the Matter in Our Audit We obtained an understanding, evaluated the design and tested the operating effectiveness of controls over the Company's goodwill and tradenames with indefinite lives impairment review process, including controls over management's review of the significant assumptions described above. This included evaluating controls over the Company's budgetary and forecasting process used to develop the estimated future cash flows. We also tested controls over management's review of the data used in their valuation models and review of the significant assumptions such as estimation of weighted average cost of capital, discount rates, and royalty rates, and terminal growth rates.

To test the estimated fair value of the Company's reporting units and tradenames with indefinite lives, we performed audit procedures that included, among others, evaluating the Company's valuation methodologies, testing the significant assumptions discussed above and testing the underlying data used by the Company in its analysis. We compared the projected cash flows to the Company's historical cash flows and other available industry and market forecast information. We involved our valuation specialists to assist in reviewing the valuation methodology and testing certain significant assumptions. We assessed the historical accuracy of management's estimates and performed sensitivity analyses of significant assumptions to evaluate the changes in the fair value of the reporting units and tradenames with indefinite lives that would result from changes in the assumptions. In addition, for goodwill we also tested management's reconciliation of the fair value of the reporting units to the market capitalization of the Company. For tradenames with indefinite lives, we also assessed whether the assumptions used were consistent with those used in the goodwill impairment review process.

Inventory Reserves

Description of the Matter The Company's inventories totaled \$1,408 million, net of inventory reserves of \$577 million, as of December 31, 2020. As explained in Note 2 to the consolidated financial statements, the Company assesses the value of all inventories including raw materials, work-in-process and finished goods in each reporting period. Obsolete inventory or inventory in excess of management's estimated usage requirement is written down to its estimated market value if those amounts are determined to be less than cost.

Auditing management's estimates for obsolete and excess inventory involved subjective auditor judgement because the estimates rely on a number of factors that are affected by market and economic conditions outside the Company's control.

How We Addressed the Matter in Our Audit We obtained an understanding, evaluated the design, and tested the operating effectiveness of internal controls over the Company's obsolete and excess inventory reserve process. This included management's assessment of the assumptions and data underlying the obsolete and excess inventory valuation.

Our audit procedures included, among others, evaluating the significant assumptions and the accuracy and completeness of the underlying data management used to value obsolete and excess inventory. We compared inventories on-hand to historical usage, analytical trends, and evaluated specific product considerations. We performed sensitivity analyses over the significant assumptions to evaluate the changes in the obsolete and excess inventory estimates that would result from changes in the underlying assumptions.

Revenue recognition under long-term construction contracts

Description of the Matter As discussed in Note 2 to the consolidated financial statements, the Company recognizes revenue over time for certain long-term construction contracts using an input method described as the cost-to-cost approach to determine the extent of progress towards completion of performance obligations. Under the cost-to-cost approach, the determination of the progress towards completion requires management to prepare estimates of the costs to complete. For material fixed price contracts, estimates are subject to considerable judgement and could be impacted by such items as changes to the project schedule and the cost of labor and material.

Auditing management's estimate of the progress towards completion of its projects involved subjectivity as the costs to complete forecasts of fixed price contracts are subject to considerable judgement.

How We Addressed the Matter in Our Audit We obtained an understanding, evaluated the design and tested the operating effectiveness of controls over the Company's process to recognize long-term contract revenue, including key controls related to monitoring projected project costs.

Our audit procedures included, among others, evaluating the appropriate application of the cost-to-cost method to ensure it accurately depicts the Company's performance in transferring control of the performance obligation; testing the significant assumptions discussed above to develop the estimated cost to complete; and testing the completeness and accuracy of the underlying data. To assess management's estimated costs, we performed audit procedures that included, among others, agreeing the estimates to supporting documentation; conducting interviews with project personnel; attending selected project review meetings; performing observations of select projects to observe progress; and performing lookback analyses to historical actual costs to assess management's ability to estimate.

Measurement of Long-lived Assets

Description of the Matter As more fully described in Note 6 to the consolidated financial statements, during 2020, the Company identified a triggering event, which resulted in the Company assessing its asset groups for recoverability and determined that certain long-lived assets, including finite-lived intangibles, plant, property and equipment, and right-of-use assets, were not recoverable. As a result, the Company recognized \$513 million of impairment charges.

Auditing management's impairment analysis involved subjectivity as estimates underlying the recoverability assessment and the determination of the asset groups' fair value were based on assumptions that are sensitive to and affected by expected future market or economic conditions, and industry and company-specific qualitative factors. Significant assumptions used in the Company's recoverability assessment and fair value estimate included projected cash flows, discount rates and terminal values.

*How We
Addressed the
Matter in Our
Audit*

We obtained an understanding, evaluated the design and tested the operating effectiveness of controls over the Company's recoverability assessment and its processes to determine the fair value of the asset groups. This included evaluating controls over the Company's budgetary and forecasting process used to develop the estimated future cash flows. We also tested controls over management's review of the data used in their impairment analysis and review of the significant assumptions such as estimation of discount rates and terminal values.

To test the recoverability assessment and estimated fair value of the Company's asset groups, we performed audit procedures that included, among others, assessing methodologies and testing the significant assumptions discussed above and the underlying data used by the Company in its analysis. We compared the projected cash flows to the Company's historical cash flows and other available industry and market forecast information. We involved our valuation specialists to assist in reviewing the valuation methodology and testing the discount rates and terminal values. We assessed the historical accuracy of management's estimates and where appropriate, assessed whether the assumptions used were consistent with those used in the goodwill impairment analysis.

/s/ Ernst & Young LLP

We have served as the Company's auditor since at least 1995, but we are unable to determine the specific year.

Houston, Texas

February 12, 2021

NOV INC.
CONSOLIDATED BALANCE SHEETS
(In millions, except share data)

	December 31,	
	2020	2019
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 1,692	\$ 1,171
Receivables, net	1,274	1,855
Inventories, net	1,408	2,197
Contract assets	611	643
Prepaid and other current assets	224	247
Total current assets	5,209	6,113
Property, plant and equipment, net	1,927	2,354
Lease right-of-use assets, operating	371	444
Lease right-of-use assets, financing	195	230
Deferred income taxes	—	—
Goodwill	1,493	2,807
Intangibles, net	527	852
Investment in unconsolidated affiliates	51	282
Other assets	156	67
Total assets	<u>\$ 9,929</u>	<u>\$ 13,149</u>
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 489	\$ 715
Accrued liabilities	863	949
Contract liabilities	354	427
Current portion of lease liabilities	110	114
Accrued income taxes	51	42
Total current liabilities	1,867	2,247
Long-term debt	1,834	1,989
Lease liabilities	612	674
Deferred income taxes	78	140
Other liabilities	259	253
Total liabilities	4,650	5,303
Commitments and contingencies		
Stockholders' equity:		
Common stock - par value \$.01; 1 billion shares authorized; 388,255,374 and 385,886,682 shares issued and outstanding at December 31, 2020 and December 31, 2019	4	4
Additional paid-in capital	8,591	8,507
Accumulated other comprehensive loss	(1,509)	(1,423)
Retained earnings	(1,876)	690
Total Company stockholders' equity	5,210	7,778
Noncontrolling interests	69	68
Total stockholders' equity	5,279	7,846
Total liabilities and stockholders' equity	<u>\$ 9,929</u>	<u>\$ 13,149</u>

The accompanying notes are an integral part of these statements.

NOV INC.
CONSOLIDATED STATEMENTS OF INCOME (LOSS)
(In millions, except per share data)

	Years Ended December 31,		
	2020	2019	2018
Revenue			
Sales	\$ 4,409	\$ 5,862	\$ 5,699
Services	1,091	1,517	1,612
Rental	590	1,100	1,142
Total	<u>6,090</u>	<u>8,479</u>	<u>8,453</u>
Cost of revenue			
Sales	4,313	5,696	4,883
Services	929	1,188	1,257
Rental	414	750	869
Total	<u>5,656</u>	<u>7,634</u>	<u>7,009</u>
Gross profit	434	845	1,444
Selling, general and administrative	968	1,303	1,233
Goodwill and indefinite-lived intangible asset impairment	1,378	3,612	—
Long-lived asset impairment	513	2,209	—
Operating profit (loss)	(2,425)	(6,279)	211
Interest and financial costs	(84)	(100)	(93)
Interest income	7	20	25
Equity loss in unconsolidated affiliates	(260)	(13)	(3)
Other income (expense), net	(17)	(90)	(99)
Income (loss) before income taxes	(2,779)	(6,462)	41
Provision (benefit) for income taxes	(242)	(369)	63
Net loss	(2,537)	(6,093)	(22)
Net income attributable to noncontrolling interests	5	2	9
Net loss attributable to Company	<u>\$ (2,542)</u>	<u>\$ (6,095)</u>	<u>\$ (31)</u>
Net loss attributable to Company per share:			
Basic	<u>\$ (6.62)</u>	<u>\$ (15.96)</u>	<u>\$ (0.08)</u>
Diluted	<u>\$ (6.62)</u>	<u>\$ (15.96)</u>	<u>\$ (0.08)</u>
Cash dividends per share	<u>\$ 0.05</u>	<u>\$ 0.20</u>	<u>\$ 0.20</u>
Weighted average shares outstanding:			
Basic	<u>384</u>	<u>382</u>	<u>378</u>
Diluted	<u>384</u>	<u>382</u>	<u>378</u>

The accompanying notes are an integral part of these statements.

NOV INC.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)
(In millions)

	Years Ended December 31,		
	2020	2019	2018
Net loss	\$ (2,537)	\$ (6,093)	\$ (22)
Other comprehensive income (loss):			
Currency translation adjustments	(78)	(7)	(292)
Derivative financial instruments, net of tax	23	10	(21)
Change in defined benefit plans, net of tax	(31)	11	(14)
Comprehensive loss	(2,623)	(6,079)	(349)
Net income attributable to noncontrolling interests	5	2	9
Comprehensive loss attributable to Company	<u>\$ (2,628)</u>	<u>\$ (6,081)</u>	<u>\$ (358)</u>

The accompanying notes are an integral part of these statements.

NOV INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In millions)

	Years Ended December 31,		
	2020	2019	2018
Cash flows from operating activities:			
Net loss	\$ (2,537)	\$ (6,093)	\$ (22)
Adjustments to reconcile net loss to net cash provided by operating activities:			
Depreciation and amortization	352	533	690
Deferred income taxes	(65)	(426)	(63)
Stock-based compensation	105	130	110
Loss on extinguishment of debt	8	26	—
Equity loss in unconsolidated affiliates	260	13	3
Goodwill and indefinite-lived intangible asset impairment	1,378	3,612	—
Long-lived asset impairment	513	2,209	—
Provision for inventory losses	367	659	49
Other, net	16	16	(7)
Change in operating assets and liabilities, net of acquisitions:			
Receivables	574	275	(72)
Inventories	429	104	(7)
Contract assets	30	(70)	(68)
Prepaid and other current assets	22	(45)	67
Accounts payable	(226)	(19)	196
Accrued liabilities	(110)	(194)	(186)
Contract liabilities	(74)	(34)	(62)
Income taxes payable	9	(25)	(15)
Other assets/liabilities, net	(125)	43	(92)
Net cash provided by operating activities	926	714	521
Cash flows from investing activities:			
Purchases of property, plant and equipment	(226)	(233)	(244)
Business acquisitions, net of cash acquired	(14)	(180)	(280)
Other, net	96	98	67
Net cash used in investing activities	(144)	(315)	(457)
Cash flows from financing activities:			
Borrowings against lines of credit and other debt	36	511	—
Payments against lines of credit and other debt	(217)	(1,000)	—
Financing leases	(31)	(32)	(8)
Cash dividends paid	(19)	(77)	(76)
Debt issuance and extinguishment costs	(8)	(36)	—
Other	(20)	(13)	54
Net cash used in financing activities	(259)	(647)	(30)
Effect of exchange rates on cash	(2)	(8)	(44)
Increase (decrease) in cash and cash equivalents	521	(256)	(10)
Cash and cash equivalents, beginning of period	1,171	1,427	1,437
Cash and cash equivalents, end of period	\$ 1,692	\$ 1,171	\$ 1,427
Supplemental disclosures of cash flow information:			
Cash payments during the period for:			
Interest	\$ 83	\$ 85	\$ 90
Income taxes	\$ (9)	\$ 144	\$ 64

The accompanying notes are an integral part of these statements.

NOV INC.
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(In millions)

	Shares Outstanding	Common Stock	Additional Paid in Capital	Accumulated Other Comprehensive Income (Loss)	Retained Earnings (Loss)	Total Company Stockholders' Equity	Noncontrolling Interests	Total Stockholders' Equity
Balance at December 31, 2017	380	\$ 4	\$ 8,234	\$ (1,110)	\$ 6,966	\$ 14,094	\$ 66	\$ 14,160
Net income (loss)	—	—	—	—	(31)	(31)	9	(22)
Other comprehensive income (loss), net	—	—	—	(327)	—	(327)	—	(327)
Cash dividends, \$0.20 per common share	—	—	—	—	(76)	(76)	—	(76)
Noncontrolling interest	—	—	—	—	—	—	(5)	(5)
Adoption of new accounting standards	—	—	—	—	3	3	—	3
Stock-based compensation	—	—	110	—	—	110	—	110
Common stock issued	3	—	54	—	—	54	—	54
Withholding taxes	—	—	(8)	—	—	(8)	—	(8)
Balance at December 31, 2018	383	\$ 4	\$ 8,390	\$ (1,437)	\$ 6,862	\$ 13,819	\$ 70	\$ 13,889
Net income (loss)	—	—	—	—	(6,095)	(6,095)	2	(6,093)
Other comprehensive income (loss), net	—	—	—	14	—	14	—	14
Cash dividends, \$0.20 per common share	—	—	—	—	(77)	(77)	—	(77)
Noncontrolling interest	—	—	—	—	—	—	(4)	(4)
Stock-based compensation	—	—	130	—	—	130	—	130
Common stock issued	3	—	7	—	—	7	—	7
Withholding taxes	—	—	(20)	—	—	(20)	—	(20)
Balance at December 31, 2019	386	\$ 4	\$ 8,507	\$ (1,423)	\$ 690	\$ 7,778	\$ 68	\$ 7,846
Net loss	—	—	—	—	(2,542)	(2,542)	5	(2,537)
Other comprehensive loss, net	—	—	—	(86)	—	(86)	—	(86)
Cash dividends, \$0.05 per common share	—	—	—	—	(19)	(19)	—	(19)
Adoption of new accounting standards	—	—	—	—	(5)	(5)	—	(5)
Noncontrolling interest	—	—	—	—	—	—	(4)	(4)
Stock-based compensation	—	—	104	—	—	104	—	104
Common stock issued	2	—	—	—	—	—	—	—
Withholding taxes	—	—	(20)	—	—	(20)	—	(20)
Balance at December 31, 2020	388	\$ 4	\$ 8,591	\$ (1,509)	\$ (1,876)	\$ 5,210	\$ 69	\$ 5,279

The accompanying notes are an integral part of these statements.

NOV INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Organization and Basis of Presentation

Nature of Business

We design, construct, manufacture and sell comprehensive systems, components, and products used in oil and gas drilling and production and certain industrial and renewable energy sectors. We also provide technology, oilfield services and supplies, and distribute products and provide supply chain integration services to the upstream oil and gas industry. Our revenues and operating results are directly related to the level of worldwide oil and gas drilling and production activities and the profitability and cash flow of oil and gas companies, drilling contractors and oilfield service companies, which in turn are affected by current and anticipated prices of oil and gas. Oil and gas prices have been, and are likely to continue to be, volatile.

Basis of Consolidation

The accompanying Consolidated Financial Statements include the accounts of NOV Inc. and its consolidated subsidiaries. Certain reclassifications have been made to the prior year financial statements in order for them to conform with the 2020 presentation. All significant intercompany transactions and balances have been eliminated in consolidation. Investments that are not wholly-owned, but where we exercise control, are fully consolidated with the equity held by minority owners and their portion of net income (loss) reflected as noncontrolling interests in the accompanying consolidated financial statements. Investments in unconsolidated affiliates, over which we exercise significant influence, but not control, are accounted for by the equity method.

2. Summary of Significant Accounting Policies

Fair Value of Financial Instruments

The carrying amounts of financial instruments including cash and cash equivalents, receivables, and payables approximated fair value because of the relatively short maturity of these instruments. Cash equivalents include only those investments having a maturity date of three months or less at the time of purchase.

Derivative Financial Instruments

The Company records all derivative financial instruments at their fair value in its Consolidated Balance Sheet. Except for certain non-designated hedges discussed below, all derivative financial instruments that the Company holds are designated as cash flow hedges and are highly effective in offsetting movements in the underlying risks. Such arrangements typically have terms between two and 24 months, but may have longer terms depending on the underlying cash flows being hedged, typically related to the projects in our backlog.

Inventories

Inventories are stated at the lower of cost or estimated net realizable value using the first-in, first-out or average cost methods. Inventories consist of raw materials and supplies, work-in-process and finished goods and purchased products. The Company reviews historical usage of inventory on-hand, assumptions about future demand and market conditions, and estimates about potential alternative uses, which are limited, to estimate net realizable value. The Company evaluates inventory quarterly using the best information available at the time to inform our assumptions and estimates about future demand and resulting sales volumes, and recognizes reserves as necessary to properly state inventory.

Based on an update of our assumptions at each point in time related to estimates of future demand, we recorded charges for additions to inventory reserves of \$356 million, \$659 million, and \$49 million for the years ended December 31, 2020, 2019, and 2018, respectively, consisting primarily of obsolete and surplus inventories. At December 31, 2020 and 2019, inventory reserves totaled \$577 million and \$843 million, or 29.0% and 27.7% of gross inventory, respectively.

Property, Plant and Equipment

Property, plant and equipment are recorded at cost. Expenditures for major improvements that extend the lives of property and equipment are capitalized while minor replacements, maintenance and repairs are charged to operations as incurred. Disposals are removed at cost less accumulated depreciation with any resulting gain or loss reflected in operations. Depreciation is provided using the straight-line method over the estimated useful lives of individual items. Depreciation expense was \$302 million, \$355 million and \$349 million for the years ended December 31, 2020, 2019 and 2018, respectively. The estimated useful lives of the major classes of property, plant and equipment are included in Note 5 to the consolidated financial statements.

We record impairment losses on long-lived assets used in operations when events and circumstances indicate that the assets are impaired and the undiscounted cash flows estimated to be generated by those assets are less than the carrying amount of those assets. The carrying value of assets used in operations that are not recoverable is reduced to fair value if lower than carrying value. In determining the fair market value of the assets, we consider market trends and recent transactions involving sales of similar assets, or when not available, discounted cash flow analysis. Impairments of plant, property and equipment were \$262 million, \$252 million and \$21 million for the years ended December 31, 2020, 2019 and 2018, respectively.

Lease Right-of-Use Assets

The Company leases certain facilities and equipment to support its operations around the world. These leases generally require the Company to pay maintenance, insurance, taxes and other operating costs in addition to rent. Renewal options are common in longer term leases; however, it is rare that the Company intends to exercise a lease option at inception due to the cyclical nature of the Company's business. Residual value guarantees are not typically part of the Company's leases. Occasionally, the Company sub-leases excess facility space, generally at terms similar to the source lease. The Company reviews new agreements to determine if they include a lease and, when they do, uses its incremental borrowing rate to determine the present value of the future lease payments as most do not include implicit interest rates. The Company recorded impairment charges of \$42 million, \$56 million and zero for the years ended December 31, 2020, 2019 and 2018, respectively.

Acquisitions and Investments

Acquisitions of businesses are accounted for using the acquisition method of accounting, and the financial statements include the results of the acquired operations from the respective dates of acquisition.

The purchase price of the acquired entities is preliminarily allocated to the net assets acquired and liabilities assumed based on the estimated fair value at the dates of acquisition, with any excess of cost over the fair value of net assets acquired, including intangibles, recognized as goodwill. Subsequent changes to preliminary amounts are made prospectively.

The Company paid cash of \$14 million, \$180 million and \$280 million for acquisitions for the years ended December 31, 2020, 2019 and 2018, respectively. These acquisitions did not have a material effect on the Company's operating results, cash flows or financial position.

Foreign Currency

The functional currency for most of our foreign operations is the local currency. However, certain foreign operations, including our operations in Norway, use the U.S. dollar as the functional currency. The cumulative effects of translating the balance sheet accounts from the functional currency into the U.S. dollar at current exchange rates are included in accumulated other comprehensive income (loss). Revenues and expenses are translated at average exchange rates in effect during the period. Accordingly, financial statements of these foreign subsidiaries are remeasured to U.S. dollars for consolidation purposes using current rates of exchange for monetary assets and liabilities and historical rates of exchange for nonmonetary assets and related elements of expense. Revenue and expense elements are remeasured at rates that approximate the rates in effect on the transaction dates. For all operations, gains or losses from remeasuring foreign currency transactions into the functional currency are included in income. Net foreign currency transaction losses were \$2 million, \$36 million and \$52 million for the years ending December 31, 2020, 2019 and 2018, respectively, and are included in other income (expense) in the accompanying statement of income (loss).

Revenue Recognition

The majority of the Company's revenue streams record revenue at a point in time when a performance obligation has been satisfied by transferring control of promised goods or services to a customer. Products are sold or rented and services are provided based upon a fixed or determinable price and do not generally include right of return or other significant post-delivery obligations. Revenue is recognized net of any taxes collected from customers, which are subsequently remitted to governmental authorities. Payment terms and conditions vary by contract type. We have elected to apply the practical expedient that does not require an adjustment for a financing component if, at contract inception, the period between when we transfer the promised goods or service to the customer and when the customer pays for the goods or service is one year or less. Shipping and handling costs are recognized when incurred and are treated as costs to fulfill the original performance obligation instead of as a separate performance obligation.

Revenue is generated from contracts that may include multiple performance obligations. Using significant judgement, the Company considers the degree of customization, integration and interdependency of the related products and services when assessing distinct performance obligations within one contract. Stand-alone selling price ("SSP") for each distinct performance obligation is generally determined using the price at which the products and services would be sold separately to the customer. Discounts, when provided, are allocated based on the relative SSP of the various products and services.

For revenue that is not recognized at a point in time, the Company follows accounting guidance for revenue recognized over time, as follows:

Revenue Recognition under Long-term Construction Contracts

Revenue is recognized over-time for certain long-term construction contracts in the Completion & Production Solutions and Rig Technologies segments. These contracts include custom designs for customer-specific applications that are unique and require significant engineering efforts. Revenue is recognized as work progresses on each contract. Right to payment is enforceable for performance completed to date, including a reasonable profit.

Because of control transferring over time, revenue is recognized based on the extent of progress towards completion of the performance obligation. We generally use the cost-to-cost (input) measure of progress for our contracts because it best depicts the transfer of assets to the customer which occurs as we incur costs. Under the cost-to-cost measure of progress, progress towards completion of each contract is measured based on the ratio of costs incurred to date to the total estimated costs at completion of the performance obligation. Revenues, including estimated fees or profits, are recorded proportionally as costs are incurred. These costs include labor, materials, subcontractors' costs, and other direct costs. Any expected losses on a project are recorded in full in the period in which the loss becomes probable.

These long-term construction contracts generally include a significant service of integrating a complex set of tasks and components into a single project or capability, so are accounted for as one performance obligation.

Estimating total revenue and cost at completion of long-term construction contracts is complex, subject to many variables and requires significant judgement. It is common for our long-term contracts to contain late delivery fees, work performance guarantees, and other provisions that can either increase or decrease the transaction price. We estimate variable consideration as the most likely amount we expect to receive. We include variable consideration in the estimated transaction price to the extent it is probable that a significant reversal of cumulative revenue recognized will not occur, or when the uncertainty associated with the variable consideration is resolved. Our estimates of variable consideration and determination of whether to include estimated amounts in the transaction price are based on an assessment of our anticipated performance and historical, current and forecasted information that is reasonably available to us. Net revenue recognized from performance obligations satisfied in previous periods was \$41 million and \$62 million for the years ended December 31, 2020 and 2019, respectively, primarily due to change orders.

Service and Repair Work

For service and repair contracts, revenue is recognized over time. We generally use the output method to measure progress on service contracts due to the manner in which the customer receives and derives value from the services provided. For repair contracts, we generally use the cost-to-cost measure of progress because it best depicts the transfer of assets to the customer.

Remaining Performance Obligations

Remaining performance obligations represent the transaction price of firm orders for all revenue streams for which work has not been performed on contracts with an original expected duration of one year or more. We do not disclose the remaining performance obligations of royalty contracts, service contracts for which there is a right to invoice, and short-term contracts that are expected to have a duration of one year or less.

As of December 31, 2020, the aggregate amount of the transaction price allocated to remaining performance obligations was \$3,693 million. The Company expects to recognize approximately \$905 million in revenue for the remaining performance obligations in 2021 and \$2,787 million in 2022 and thereafter.

Costs to Obtain and Fulfill a Contract

We recognize an asset for the incremental costs of obtaining a contract, such as sales commissions, with a customer when we expect the benefit of those costs to be longer than one year. Costs to fulfill a contract, such as set-up and mobilization costs, are also capitalized when we expect to recover those costs. These contract costs are deferred and amortized over the period of contract performance. Total capitalized costs to obtain and fulfill a contract and the related amortization were immaterial during the periods presented and are included in other current and long-term assets on our consolidated balance sheets. We apply the practical expedient to expense costs as incurred for costs to obtain a contract with a customer when the amortization period would have been one year or less.

Service and Product Warranties

The Company provides service and warranty policies on certain of its products. The Company accrues liabilities under service and warranty policies based upon specific claims and a review of historical warranty and service claim experience. Adjustments are made to accruals as claim data and historical experience change. In addition, the Company incurs discretionary costs to service its products in connection with product performance issues and accrues for them when they are encountered. The Company monitors the actual cost of performing these discretionary services and adjusts the accrual based on the most current information available.

The changes in the carrying amount of service and product warranties are as follows (in millions):

Balance at December 31, 2018	\$	<u>105</u>
Net provisions for warranties issued during the year		41
Amounts incurred		(56)
Currency translation adjustments		—
Balance at December 31, 2019	\$	<u>90</u>
Net provisions for warranties issued during the year		22
Amounts incurred		(26)
Currency translation adjustments		1
Balance at December 31, 2020	\$	<u>87</u>

Income Taxes

The liability method is used to account for income taxes. Deferred tax assets and liabilities are determined based on differences between the financial reporting and tax basis of assets and liabilities and are measured using the enacted tax rates that will be in effect when the differences are expected to reverse. Valuation allowances are established when necessary to reduce deferred tax assets to amounts which are more likely than not to be realized.

Concentration of Credit Risk

We grant credit to our customers, which operate primarily in the oil and gas industry. Concentrations of credit risk are limited because we have a large number of geographically diverse customers, thus spreading trade credit risk. We control credit risk through credit evaluations, credit limits and monitoring procedures. We perform periodic credit evaluations of our customers' financial condition and generally do not require collateral, but may require letters of credit for certain international sales. Credit losses are provided for in the financial statements. Allowances for doubtful

accounts are determined based on a continuous process of assessing the Company's portfolio on an individual customer basis taking into account current market conditions and trends. This process consists of a thorough review of historical collection experience, current aging status of the customer accounts, and financial condition of the Company's customers. Based on a review of these factors, the Company will establish or adjust allowances for specific customers. Accounts receivable are net of allowances for doubtful accounts of approximately \$100 million and \$132 million at December 31, 2020 and 2019, respectively.

Stock-Based Compensation

Compensation expense for the Company's stock-based compensation plans is measured using the fair value method. The fair value of stock option grants and restricted stock is amortized to expense using the straight-line method over the shorter of the vesting period or the remaining employee service period.

The Company provides compensation benefits to employees and non-employee directors under share-based payment arrangements, including various employee stock option plans.

Environmental Liabilities

When environmental assessments or remediations are probable and the costs can be reasonably estimated, remediation liabilities are recorded on an undiscounted basis and are adjusted as further information develops or circumstances change.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect reported and contingent amounts of assets and liabilities as of the date of the financial statements and reported amounts of revenues and expenses during the reporting period. Such estimates include but are not limited to, estimated losses on accounts receivable, estimated costs and related margins of projects accounted for over time, estimated realizable value on excess and obsolete inventory, contingencies, estimated liabilities for litigation exposures and liquidated damages, estimated warranty costs, estimates related to pension accounting, estimates related to the fair value of Reporting Units for purposes of assessing goodwill and other indefinite-lived intangible assets for impairment and estimates related to deferred tax assets and liabilities, including valuation allowances on deferred tax assets. Actual results could differ from those estimates.

Contingencies

The Company accrues for costs relating to litigation claims and other contingent matters, including liquidated damage liabilities, when such liabilities become probable and reasonably estimable. In circumstances where the most likely outcome of a contingency can be reasonably estimated, we accrue a liability for that amount. Where the most likely outcome cannot be estimated, a range of potential losses is established and if no one amount in that range is more likely than others, the low end of the range is accrued. Such estimates may be based on advice from third parties or on management's judgement, as appropriate. Revisions to contingent liabilities are reflected in income in the period in which different facts or information become known or circumstances change that affect the Company's previous judgements with respect to the likelihood or amount of loss. Amounts paid upon the ultimate resolution of contingent liabilities may be materially different from previous estimates and could require adjustments to the estimated reserves to be recognized in the period such new information becomes known.

Net Loss Attributable to Company Per Share

The following table sets forth the computation of weighted average basic and diluted shares outstanding (in millions, except per share data):

	Years Ended December 31,		
	2020	2019	2018
Numerator:			
Net loss attributable to Company	\$ (2,542)	\$ (6,095)	\$ (31)
Denominator:			
Basic—weighted average common shares outstanding	384	382	378
Dilutive effect of employee stock options and other unvested stock awards	—	—	—
Diluted outstanding shares	384	382	378
Basic loss attributable to Company per share	\$ (6.62)	\$ (15.96)	\$ (0.08)
Diluted loss attributable to Company per share	\$ (6.62)	\$ (15.96)	\$ (0.08)
Cash dividends per share	\$ 0.05	\$ 0.20	\$ 0.20

Net loss attributable to Company allocated to participating securities was immaterial for the years ended December 31, 2020, 2019 and 2018 and therefore not excluded from net loss attributable to Company per share calculation. The Company had stock options outstanding that were anti-dilutive totaling 26 million, 20 million, and 20 million at December 31, 2020, 2019 and 2018, respectively.

Recently Adopted Accounting Standards

In June 2016, the FASB issued ASU 2016-13, Financial Instruments – Credit Losses (ASC Topic 326): Measurement of Credit Losses on Financial Instruments. This update improves financial reporting by requiring earlier recognition of forecast credit losses on financing receivables and other financial assets in scope. ASU 2016-13 is effective for fiscal periods beginning after December 15, 2019, including interim periods within those fiscal years. The Company adopted this update on January 1, 2020, with no material impact. The Company estimates its reserves using information about past events, current conditions and risk characteristics of each customer, and reasonable and supportable forecasts relevant to assessing risk associated with the collectability of Trade Accounts Receivables, Contract Assets, Unbilled Accounts Receivables, and Long-Term Receivables. The Company's customer base, mostly in the oil and gas industry, have generally similar collectability risk characteristics, although larger and state-owned customers may have lower risk than smaller independent customers. As of December 31, 2020, allowance for bad debts and contract assets totaled \$102 million.

Recently Issued Accounting Standards

In December 2019, the FASB issued ASU 2019-12, "Simplifying the Accounting for Income Taxes." This ASU eliminates certain exceptions related to the approach for intraperiod tax allocation, the methodology for calculating income taxes in an interim period and the recognition of deferred tax liabilities for outside basis differences. It also clarifies and simplifies other aspects of accounting for income taxes. ASU 2019-12 is effective for interim and annual reporting periods beginning after December 15, 2020, with early adoption permitted. Management is currently assessing the impact of adopting ASU 2019-12 on the Company's financial position, results of operations and cash flows.

In March 2020, the FASB issued ASU 2020-04, "Reference Rate Reform (Topic 848)" This ASU applies only to contracts, hedging relationships, and other transactions that reference LIBOR or another reference rate expected to be discontinued because of reference rate reform. The expedients and exceptions provided by the amendments do not apply to contract modifications made and hedging relationships entered into or evaluated after December 31, 2022, except for hedging relationships existing as of December 31, 2022, that an entity has elected certain optional expedients for and that are retained through the end of the hedging relationship. Management is currently assessing the impact of adopting ASU 2020-04 on the company's financial position, results of operations and cash flows.

3. Derivative Financial Instruments

The Company uses derivative financial instruments to manage its foreign currency exchange rate risk. Forward currency contracts are executed to manage the foreign currency exchange rate risk on forecasted revenues and expenses denominated in currencies other than the functional currency of the operating unit (cash flow hedge). The Company also executes forward currency contracts to manage the foreign currency exchange rate risk on recognized nonfunctional currency monetary accounts (non-designated hedge).

Forward currency contracts consist of (in millions):

Currency	Currency Denomination			
		December 31, 2020		December 31, 2019
South Korean Won	KRW	17,600	KRW	17,600
Norwegian Krone	NOK	3,817	NOK	5,377
Russian Ruble	RUB	1,118	RUB	1,012
Danish Krone	DKK	875	DKK	21
Brazilian Real	BRL	768	BRL	—
Mexican Peso	MXN	402	MXN	115
U.S. Dollar	USD	367	USD	686
Japanese Yen	JPY	340	JPY	36
South African Rand	ZAR	124	ZAR	124
Euro	EUR	116	EUR	188
Singapore Dollar	SGD	31	SGD	42
British Pound Sterling	GBP	18	GBP	20
Canadian Dollar	CAD	1	CAD	3

Cash Flow Hedging Strategy

To protect against the volatility of forecasted foreign currency cash flows resulting from forecasted revenues and expenses, the Company maintains a cash flow hedging program. For derivative instruments that are designated and qualify as a cash flow hedge, the gain or loss on the derivative instrument is recorded in accumulated other comprehensive income (loss) and reclassified into earnings in the same line item associated with the forecasted transaction and in the same period or periods during which the hedged transaction affects earnings (e.g., in “revenues” when the hedged transactions are cash flows associated with forecasted revenues). The Company includes time value in hedge relationships.

The Company expects accumulated other comprehensive loss of \$10 million will be reclassified into earnings within the next twelve months.

Non-designated Hedging Strategy

The Company enters into forward exchange contracts to hedge certain nonfunctional currency monetary accounts. The gain or loss on the derivative instrument is recognized in earnings in other income (expense), together with the changes in the hedged nonfunctional monetary accounts.

The amount of gain (loss) recognized in other income (expense), net was (\$3) million, (\$12) million and \$2 million for the years ended 2020, 2019 and 2018, respectively.

The Company has the following fair values of its derivative instruments and their balance sheet classifications (in millions):

Fair Values of Derivative Instruments (In millions)						
Asset Derivatives			Liability Derivatives			
Balance Sheet Location	Fair Value December 31,		Balance Sheet Location	Fair Value December 31,		
	2020	2019		2020	2019	
Derivatives designated as hedging instruments under ASC Topic 815						
Foreign exchange contracts	Prepaid and other current assets	\$ 17	\$ 5	Accrued liabilities	\$ 11	\$ 18
Foreign exchange contracts	Other Assets	12	4	Other Liabilities	—	2
Total derivatives designated as hedging instruments under ASC Topic 815		<u>\$ 29</u>	<u>\$ 9</u>		<u>\$ 11</u>	<u>\$ 20</u>
Derivatives not designated as hedging instruments under ASC Topic 815						
Foreign exchange contracts	Prepaid and other current assets	\$ 17	\$ 8	Accrued liabilities	\$ 4	\$ 6
Foreign exchange contracts	Other Assets	—	1	Other Liabilities	—	—
Total derivatives not designated as hedging instruments under ASC Topic 815		<u>\$ 17</u>	<u>\$ 9</u>		<u>\$ 4</u>	<u>\$ 6</u>
Total derivatives		<u>\$ 46</u>	<u>\$ 18</u>		<u>\$ 15</u>	<u>\$ 26</u>

4. Inventories, net

Inventories consist of (in millions):

	December 31,	
	2020	2019
Raw materials and supplies	\$ 373	\$ 577
Work in process	189	364
Finished goods and purchased products	1,423	2,099
	1,985	3,040
Less: Inventory reserve	(577)	(843)
Total	<u>\$ 1,408</u>	<u>\$ 2,197</u>

5. Property, Plant and Equipment, net

Property, plant and equipment consist of (in millions):

	Estimated Useful Lives	December 31,	
		2020	2019
Land		\$ 175	\$ 231
Buildings and improvements	5-35 Years	1,343	1,309
Operating equipment	2-20 Years	2,660	2,946
Rental equipment	2-15 Years	799	851
		4,977	5,337
Less: Accumulated Depreciation		(3,050)	(2,983)
		<u>\$ 1,927</u>	<u>\$ 2,354</u>

6. Asset Impairments

Goodwill and Other Indefinite-Lived Intangible Assets

The Company tests intangible assets for impairment annually, or more frequently if events or circumstances indicate they could be impaired. Potential impairment indicators include, but are not limited to: a sustained increase in worldwide inventories of oil or gas, sustained reductions in: worldwide oil and gas prices or drilling activity; the profitability or cash flow of oil and gas companies or drilling contractors; available financing or other capital for oil and gas companies or drilling contractors; the market capitalization of the Company or its customers; or, capital investments by drilling companies and oil and gas companies.

During the first quarter of 2020 the coronavirus (COVID-19) outbreak rapidly spread across the world, driving sharp demand destruction for crude oil as whole economies ordered curtailed activity. Members of the Organization of the Petroleum Exporting Countries and other producing countries (OPEC+), including Russia, increased production into the already oversupplied market, decimating oil prices. The result was the Company's stock price reaching a new low during the quarter and its market capitalization falling below its carrying value. West Texas Intermediate (WTI), a key benchmark for the U.S. oil market, fell more than \$40 per barrel from January 1, 2020, to March 31, 2020, (losing two thirds of its value in 90 days) to its lowest level in nearly two decades. As travel restrictions and government directives to shut down businesses increased, demand was expected to continue declining in the second quarter of 2020. Management reduced its forecast accordingly.

In the Company's view, falling rig count levels in the first quarter and a depressed outlook provided evidence to the equity markets that oil and gas producers were committed to reduced levels of capital investment in drilling, further reducing levels of demand for capital equipment and oilfield services that the Company sells to its customers. Also, due to these prolonged poor market conditions, capital availability to many of the Company's customers became even more limited and was unlikely to improve near-term. In management's judgement the facts and circumstances including those described above constituted a triggering event in the first quarter which indicated the Company's goodwill and other long-lived assets may be impaired. The Company performed a detailed analysis under ASC 350, incorporating this updated outlook, which determined that the fair values were less than the respective carrying values for all of the Company's business units ("Reporting Units").

The Company primarily uses the discounted cash flow method to estimate the fair value of its Reporting Units when conducting the impairment test but also considers the comparable companies and representative transaction methods to validate the test result and management's forecast and other expectations, where possible. The valuation techniques used in the test were consistent with those used during previous testing. Fair value of the Reporting Unit is determined using significant unobservable inputs, or Level 3 in the fair value hierarchy. These inputs are based on internal management estimates, forecasts and judgements, using discounted cash flows. The inputs used in the test were updated to reflect management's judgement, current market conditions and forecasts.

The discounted cash flow was based on management's forecast of operating performance for each Reporting Unit. The two main assumptions used, which bear the risk of change and could impact the test result, include the forecast cash flow from operations from each of the Company's Reporting Units and their respective weighted average cost of capital. The starting point for each of the Reporting Unit's cash flow from operations was the detailed forecast, modified to incorporate our revised outlook, as appropriate. The Reporting Unit carrying values were adjusted based on the long-lived asset impairment assessment noted below. Cash flows beyond the plan or forecast were estimated using a terminal value calculation which incorporated historical and forecasted financial cyclical trends for each Reporting Unit and considered long-term earnings growth rates. Financial and credit market volatility directly impacts our fair value measurement through the weighted average cost of capital used to determine a discount rate. During times of volatility, significant judgement must be applied to determine whether credit changes are a short-term or long-term trend.

For the first quarter of 2020, the Company recorded \$1,295 million in impairment charges to goodwill and \$83 million in charges to indefinite-lived intangible assets.

During the fourth quarter, the Company's Completion & Production Solutions segment reorganized its Reporting Units. The Company performed a goodwill impairment analysis prior and subsequent to the restructuring and concluded no impairment charges were necessary. The restructuring did not affect Completion & Production Solutions' consolidated financial position and results of operations.

The Company conducted its annual impairment test during the fourth quarter of 2020 and concluded no impairment charges were necessary. Further deterioration of market conditions, in management's judgement, beyond those incorporated into the extended forecast by management, could result in additional impairment charges. The remaining goodwill balance for the Company's Reporting Units at December 31, 2020 is as follows: Rig Equipment, \$661 million; Marine Construction, \$51 million; ReedHycalog, \$124 million; Wellsite Services, \$174 million; XL Systems, \$64 million; M/D Totco, \$10 million; PFT, \$41 million; Fiberglass Systems, \$346 million; and Industrial, \$22 million. Of these, Rig Equipment, Marine Construction, MD Totco, Wellsite Services, Industrial and XL Systems did not have a fair value substantially in excess of their carrying value at December 31, 2020, making them more susceptible to additional impairment charges if market conditions fall further.

The Company has approximately \$1,493 million of goodwill, by segment as follows (in millions):

	Wellbore Technologies	Completion & Production Solutions	Rig Technologies	Total
Balance at December 31, 2018	\$ 3,011	\$ 2,041	\$ 1,212	\$ 6,264
Goodwill acquired and adjusted during period	9	40	13	62
Impairment	(2,178)	(1,019)	(312)	(3,509)
Currency translation adjustments	1	(8)	(3)	(10)
Balance at December 31, 2019	843	1,054	910	2,807
Goodwill acquired and adjusted during period	4	—	—	4
Impairment	(517)	(580)	(198)	(1,295)
Currency translation adjustments and other	(22)	(1)	—	(23)
Balance at December 31, 2020 (1)	<u>\$ 308</u>	<u>\$ 473</u>	<u>\$ 712</u>	<u>\$ 1,493</u>

(1) Accumulated goodwill impairment was \$7,261 million as of December 31, 2020.

Impairment of Long-Lived Assets (Excluding Goodwill and Other Indefinite-Lived Intangible Assets)

Long-lived assets, which include property, plant and equipment, right of use, and finite-lived intangible assets, comprise a significant amount of the Company's total assets. The Company makes judgements and estimates in conjunction with the carrying value of these assets, including amounts to be capitalized, depreciation and amortization methods and estimated useful lives.

The Company identified its Reporting Units as individual asset groups. The carrying values of these asset groups are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amounts may not be recoverable. An impairment loss is recorded in the period in which it is determined that the carrying amount of the asset is not recoverable based on estimated future undiscounted cash flows. We estimate the fair value of these intangible and fixed assets using an income approach that requires the Company to make long-term forecasts of its future revenues and costs related to the assets subject to review. These forecasts require assumptions about demand for the Company's products and services, future market conditions and technological developments. The forecasts are dependent upon assumptions including those regarding oil and gas prices, the general outlook for the global oil and gas industry, available financing for the Company's customers, political stability in major oil and gas producing areas, and the potential obsolescence of various types of equipment we sell, among other factors. Financial and credit market volatility directly impacts our fair value measurement through our income forecast. Changes to these assumptions, including, but not limited to: sustained declines in worldwide rig counts below current analysts' forecasts; collapse of spot and futures prices for oil and gas; significant deterioration of external financing for our customers; higher risk premiums or higher cost of equity; or any other significant adverse economic news could require a provision for impairment.

During the first quarter of 2020, the results of the Company's test for impairment of goodwill and indefinite-lived intangible assets, and the other negative market indicators described above, were a triggering event that indicated that its long-lived tangible assets and finite-lived intangible assets were impaired.

Impairment testing performed in the first quarter resulted in the determination that certain long-lived assets associated with most of the Company's asset groups were not recoverable. The estimated fair value of these asset groups was below the carrying value and as a result, during the first quarter of 2020, the Company recorded impairment charges of \$209 million to customer relationships, patents, trademarks, tradenames, and other finite-lived intangible assets,

\$262 million to property, plant and equipment, and \$42 million for right-of-use assets. Additionally, the Company recorded a \$224 million impairment on its equity investment in unconsolidated affiliates.

Remaining identified intangible assets with determinable lives consist primarily of customer relationships, trademarks, trade names, patents, and technical drawings acquired in acquisitions, and are being amortized in a manner consistent with the underlying cash flows over the estimated useful lives of 2-30 years. Amortization expense of identified intangibles is expected to be approximately \$43 million, \$40 million, \$33 million, \$28 million, and \$25 million for the next five years.

The Company has approximately \$527 million of identified intangible assets, by segment as follows (in millions):

	Wellbore Technologies	Completion & Production Solutions	Rig Technologies	Total
Balance at December 31, 2018	\$ 1,735	\$ 1,005	\$ 280	\$ 3,020
Additions to intangible assets	6	11	—	17
Impairment	(1,314)	(690)	—	(2,004)
Amortization	(94)	(56)	(28)	(178)
Currency translation adjustments	(7)	5	(1)	(3)
Balance at December 31, 2019	\$ 326	\$ 275	\$ 251	\$ 852
Additions to intangible assets	20	—	—	20
Impairment	(78)	(214)	—	(292)
Amortization	(12)	(9)	(28)	(49)
Currency translation adjustments	(3)	(5)	4	(4)
Balance at December 31, 2020	\$ 253	\$ 47	\$ 227	\$ 527

Identified intangible assets by major classification consist of the following (in millions):

	Gross	Accumulated Amortization	Net Book Value
December 31, 2019:			
Customer relationships	\$ 598	\$ (305)	\$ 293
Trademarks	190	(123)	67
Patents	121	(47)	74
Indefinite-lived trade names	280	—	280
Other	283	(145)	138
Total identified intangibles	\$ 1,472	\$ (620)	\$ 852
December 31, 2020:			
Customer relationships	\$ 475	\$ (300)	\$ 175
Trademarks	175	(116)	59
Patents	115	(53)	62
Indefinite-lived trade names	196	—	196
Other	94	(59)	35
Total identified intangibles	\$ 1,055	\$ (528)	\$ 527

7. Accrued Liabilities

Accrued liabilities consist of (in millions):

	December 31,	
	2020	2019
Vendor costs	\$ 118	\$ 121
Compensation	196	270
Taxes (non income)	158	112
Warranty	87	90
Insurance	48	57
Fair value of derivatives	15	24
Commissions	19	31
Interest	7	8
Other	215	236
Total	<u>\$ 863</u>	<u>\$ 949</u>

8. Leases

The Company leases certain facilities and equipment to support its operations around the world. These leases generally require the Company to pay maintenance, insurance, taxes and other operating costs in addition to rent. Renewal options are common in longer term leases; however, it is rare that the Company intends to exercise a lease option at inception due to the cyclical nature of the Company's business. Residual value guarantees are not typically part of the Company's leases. Occasionally, the Company sub-leases excess facility space, generally at terms similar to the source lease. The Company reviews new agreements to determine if they include a lease and, when they do, uses its incremental borrowing rate to determine the present value of the future lease payments as most do not include implicit interest rates.

Components of leases are as follows (in millions):

	December 31,	
	2020	2019
<i>Current portion of lease liabilities:</i>		
Operating	\$ 82	\$ 84
Financing	28	30
Total	<u>\$ 110</u>	<u>\$ 114</u>

	December 31,	
	2020	2019
<i>Long-term portion of lease liability:</i>		
Operating	\$ 376	\$ 424
Financing	236	250
Total	<u>\$ 612</u>	<u>\$ 674</u>

Components of lease expense were as follows (in millions):

	Years Ended	
	December 31, 2020	December 31, 2019
<i>Lease cost</i>		
Finance lease cost		
Amortization of right-of-use assets	\$ 31	\$ 32
Interest on lease liabilities	11	13
Operating lease cost	96	115
Short-term lease cost	64	68
Sub-lease income	(10)	(11)
Total	<u>\$ 192</u>	<u>\$ 217</u>

Supplemental information related to the Company's leases is as follows (in millions):

	Years Ended	
	December 31, 2020	December 31, 2019
<i>Other information:</i>		
<i>Cash paid for amounts included in the measurement of lease liabilities:</i>		
Operating cash flows - finance leases	\$ 11	\$ 13
Operating cash flows - operating leases	96	115
Financing cash flows - finance leases	31	32
<i>Right-of-use assets obtained in exchange for new:</i>		
Operating lease liabilities	47	53
Finance lease liabilities	\$ 16	\$ 12
<i>Weighted average remaining lease term at December 31, 2020:</i>		
Operating leases	11 years	10 years
Finance leases	18 years	16 years
<i>Weighted average discount rate at December 31, 2020:</i>		
Operating leases	4.93%	4.48%
Finance leases	3.92%	4.58%

Future minimum lease commitments for leases with initial or remaining terms of one year or more at December 31, 2020, are payable as follows (in millions):

	Operating	Finance
2021	\$ 101	\$ 36
2022	81	30
2023	64	23
2024	55	19
2025	44	18
Thereafter	245	228
Total lease payments	<u>590</u>	<u>354</u>
Less: Interest	(132)	(90)
Present value of lease liabilities	<u>\$ 458</u>	<u>\$ 264</u>

9. Debt

Debt consists of (in millions):

	December 31,	
	2020	2019
\$1.1 billion in Senior Notes, interest at 3.95% payable semiannually, principal due on December 1, 2042	1,089	1,088
\$0.5 billion in Senior Notes, interest at 3.60% payable semiannually, principal due on December 1, 2029	493	493
\$0.2 billion in Senior Notes, interest at 2.60% payable semiannually, principal due on December 1, 2022	182	399
Other debt	70	9
Long-term debt	<u>\$ 1,834</u>	<u>\$ 1,989</u>

Principal payments of debt for years subsequent to 2020 are as follows (in millions):

2021	—
2022	183
2023	13
2024	4
2025	14
Thereafter	1,620
	<u>\$ 1,834</u>

The Company has a \$2.0 billion, five-year unsecured revolving credit facility, which expires on October 30, 2024. The Company has the right to increase the commitments under this agreement to an aggregate amount of up to \$3.0 billion upon the consent of only those lenders holding any such increase. Interest under the multicurrency facility is based upon LIBOR, NIBOR or CDOR plus 1.125% subject to a ratings-based grid or the U.S. prime rate. The credit facility contains a financial covenant regarding maximum debt-to-capitalization ratio of 60%. As of December 31, 2020, the Company was in compliance with a debt-to-capitalization ratio of 28.4% and had no outstanding letters of credit issued under the facility, resulting in \$2.0 billion of available funds.

Additionally, the Company has a \$150 million bank line of credit for the construction of a facility in Saudi Arabia. Interest under the bank line of credit is based upon LIBOR plus 1.40%. The bank line of credit contains a financial covenant regarding maximum debt-to-equity ratio of 75%. As of December 31, 2020, the Company was in compliance. Other debt at December 31, 2020, included \$24 million on the books of consolidated joint ventures due to the minority interest partner.

On August 25, 2020, the Company completed a cash tender offer for \$217.3 million of its 2.60% unsecured Senior Notes using available cash balances. The Company paid \$226 million, which included a redemption premium of \$7.6 million as well as accrued and unpaid interest of \$1.3 million. As a result of the redemption, the Company recorded a loss on extinguishment of debt of \$8.2 million, which included the redemption premium of \$7.6 million and non-cash charges of \$0.6 million attributable to write-off unamortized discount and debt issuance costs.

The Company had \$446 million of outstanding letters of credit at December 31, 2020, primarily in the U.S. and Norway, that are under various bilateral letter of credit facilities. Letters of credit are issued as bid bonds, advanced payment bonds and performance bonds.

At December 31, 2020 and 2019, the fair value of the Company's unsecured Senior Notes approximated \$1,833 million and \$1,947 million, respectively. The fair value of the Company's debt is estimated using Level 2 inputs in the fair value hierarchy and is based on quoted prices for those or similar instruments. At December 31, 2020 and 2019, the carrying value of the Company's unsecured Senior Notes approximated \$1,764 million and \$1,980 million, respectively.

10. Employee Benefit Plans

We have benefit plans covering substantially all of our employees. Defined-contribution benefit plans cover most of the U.S. and Canadian employees, and benefits are based on years of service, a percentage of current earnings and matching of employee contributions. We also have defined contribution plans in Norway and the United Kingdom. For the years ended December 31, 2020, 2019 and 2018, expenses for defined-contribution plans were \$51 million, \$70 million, and \$68 million, respectively, and all funding is current.

Certain retired or terminated employees of predecessor or acquired companies participate in a defined benefit plan in the United States. Approximately 21 employees represented by certain collective bargaining agreements continue to accrue benefits under the plan. In addition, approximately 1,594 U.S. retirees and spouses participate in plans that provide postretirement medical and/or life insurance benefits. Except for two locations represented by certain collective bargaining agreements, active employees are ineligible to participate in any of these U.S. defined benefit plans. Active employees based in the United Kingdom are ineligible to participate in any defined benefit plans.

Net periodic benefit income (cost) for our defined benefit plans aggregated \$3 million, \$2 million and \$3 million for the years ended December 31, 2020, 2019 and 2018, respectively.

The change in benefit obligation, plan assets and the funded status of the defined benefit pension plans in the United States, United Kingdom, Norway, Germany and the Netherlands and defined postretirement plans in the United States, using a measurement date of December 31, 2020 and 2019, is as follows (in millions):

At year end	Pension benefits		Postretirement benefits	
	2020	2019	2020	2019
Benefit obligation at beginning of year	\$ 600	\$ 575	\$ 53	\$ 45
Service cost	1	1	—	—
Interest cost	14	18	—	2
Actuarial loss (gain)	54	42	5	(15)
Benefits paid	(29)	(29)	(17)	(11)
Participants contributions	—	—	2	2
Exchange rate loss (gain)	17	5	—	—
Special events	—	—	—	30
Plan amendments	—	—	—	—
Settlements	(16)	(12)	—	—
Benefit obligation at end of year	<u>\$ 641</u>	<u>\$ 600</u>	<u>\$ 43</u>	<u>\$ 53</u>
Fair value of plan assets at beginning of year	\$ 568	\$ 517	\$ —	\$ —
Actual return	43	80	—	—
Benefits paid	(29)	(29)	(17)	(11)
Company contributions	5	5	15	9
Participants contributions	—	—	2	2
Exchange rate gain (loss)	13	6	—	—
Settlements	(16)	(11)	—	—
Fair value of plan assets at end of year	<u>\$ 584</u>	<u>\$ 568</u>	<u>\$ —</u>	<u>\$ —</u>
Funded status	<u>\$ (57)</u>	<u>\$ (32)</u>	<u>\$ (43)</u>	<u>\$ (53)</u>
Accumulated benefit obligation at end of year	<u>\$ 637</u>	<u>\$ 597</u>		

Liabilities associated with the funded status of the defined benefit pension plans are included in the balances of accrued liabilities and other liabilities in the Consolidated Balance Sheet.

Defined Benefit Pension Plans

Assumed long-term rates of return on plan assets, discount rates and rates of compensation increases vary for the different plans according to the local economic conditions. The assumption rates used for benefit obligations are as follows:

	Years Ended December 31,	
	2020	2019
Discount rate:		
United States plan	1.20% - 2.40%	2.50% - 3.20%
International plans	0.70% - 1.80%	0.90% - 2.30%
Salary increase:		
United States plan	N/A	N/A
International plans	1.75% - 2.90%	1.80% - 3.10%

The assumption rates used for net periodic benefit costs are as follows:

	Years Ended December 31,		
	2020	2019	2018
Discount rate:			
United States plan	2.50% - 3.20%	3.90% - 4.20%	3.00% - 3.60%
International plans	0.00% - 2.30%	1.80% - 2.90%	1.80% - 2.40%
Salary increase:			
United States plan	N/A	N/A	N/A
International plans	1.80% - 3.10%	1.80% - 3.40%	1.80% - 3.30%
Expected return on assets:			
United States plan	4.80%	5.70%	5.60%
International plans	0.00% - 4.50%	1.90% - 4.30%	1.80% - 4.00%

In determining the overall expected long-term rate of return for plan assets, the Company takes into consideration the historical experience as well as future expectations of the asset mix involved. As different investments yield different returns, each asset category is reviewed individually and then weighted for significance in relation to the total portfolio.

The majority of our plans have projected benefit obligations in excess of plan assets.

The Company expects to pay future benefit amounts on its defined benefit plans of approximately \$34 million for each of the next five years and aggregate payments of \$325 million.

Plan Assets

The Company and its investment advisers collaboratively reviewed market opportunities using historic and statistical data, as well as the actuarial valuation reports for the plans, to ensure that the levels of acceptable return and risk are well-defined and monitored. Currently, the Company's management believes that there are no significant concentrations of risk associated with plan assets. Our pension investment strategy worldwide prohibits a direct investment in our own stock.

The following table sets forth by level, within the fair value hierarchy, the Plan's assets carried at fair value (in millions):

	Fair Value Measurements			
	Total	Level 1	Level 2	Level 3
December 31, 2019:				
Equity securities	\$ 157	\$ —	\$ 157	\$ —
Bonds	227	—	227	—
Other (insurance contracts)	184	—	121	63
Total Fair Value Measurements	<u>\$ 568</u>	<u>\$ —</u>	<u>\$ 505</u>	<u>\$ 63</u>
December 31, 2020:				
Equity securities	\$ 108	\$ —	\$ 108	\$ —
Bonds	253	—	253	—
Other (insurance contracts)	221	—	155	66
Total Fair Value Measurements	<u>\$ 582</u>	<u>\$ —</u>	<u>\$ 516</u>	<u>\$ 66</u>

Level 3 inputs are unobservable (i.e., supported by little or no market activity). Level 3 inputs include management's own judgement about the assumptions that market participants would use in pricing the asset or liability (including assumptions about risk). The following table sets forth a summary of changes in the fair value of the Plan's Level 3 assets (in millions):

	Level 3 Plan Assets
Balance at December 31, 2018	<u>\$ 55</u>
Actual return on plan assets still held at reporting date	10
Purchases, sales and settlements	(1)
Currency translation adjustments	(1)
Balance at December 31, 2019	<u>\$ 63</u>
Actual return on plan assets still held at reporting date	—
Purchases, sales and settlements	(3)
Currency translation adjustments	6
Balance at December 31, 2020	<u>\$ 66</u>

11. Accumulated Other Comprehensive Income (Loss)

The components of accumulated other comprehensive income (loss) are as follows (in millions):

	Currency Translation Adjustments	Derivative Financial Instruments, Net of Tax	Defined Benefit Plans, Net of Tax	Total
Balance at December 31, 2017	\$ (1,104)	\$ 7	\$ (13)	\$ (1,110)
Accumulated other comprehensive income (loss) before reclassifications	(298)	(19)	(13)	(330)
Amounts reclassified from accumulated other comprehensive income (loss)	6	(2)	(1)	3
Balance at December 31, 2018	\$ (1,396)	\$ (14)	\$ (27)	\$ (1,437)
Accumulated other comprehensive income (loss) before reclassifications	(7)	(2)	12	3
Amounts reclassified from accumulated other comprehensive income (loss)	—	12	(1)	11
Balance at December 31, 2019	\$ (1,403)	\$ (4)	\$ (16)	\$ (1,423)
Accumulated other comprehensive income (loss) before reclassifications	(78)	4	(30)	(104)
Amounts reclassified from accumulated other comprehensive income (loss)	—	19	(1)	18
Balance at December 31, 2020	\$ (1,481)	\$ 19	\$ (47)	\$ (1,509)

The components of amounts reclassified from accumulated other comprehensive income (loss) are as follows (in millions):

	Years Ended December 31,											
	2020				2019				2018			
	Currency Translation Adjustments	Derivative Financial Instruments	Defined Benefit Plans	Total	Currency Translation Adjustments	Derivative Financial Instruments	Defined Benefit Plans	Total	Currency Translation Adjustments	Derivative Financial Instruments	Defined Benefit Plans	Total
Revenue	\$ —	\$ 17	\$ —	\$ 17	\$ —	\$ 1	\$ —	1	\$ —	\$ 2	\$ —	\$ 2
Cost of revenue	—	6	—	6	—	14	—	14	—	(6)	—	(6)
Selling, general, and administrative	—	—	(1)	(1)	—	—	(1)	(1)	—	—	(1)	(1)
Other income (expense), net	—	—	—	—	—	—	—	—	6	—	—	6
Tax effect	—	(4)	—	(4)	—	(3)	—	(3)	—	2	—	2
	\$ —	\$ 19	\$ (1)	\$ 18	\$ —	\$ 12	\$ (1)	\$ 11	\$ 6	\$ (2)	\$ (1)	\$ 3

The Company's reporting currency is the U.S. dollar. A majority of the Company's international entities in which there is a substantial investment have the local currency as their functional currency. As a result, currency translation adjustments resulting from the process of translating the entities' financial statements into the reporting currency are reported in other comprehensive income or (loss). The Company recorded other comprehensive income (loss) of (\$78) million, \$(7) million and \$(292) million for the years ended December 31, 2020, 2019 and 2018, respectively.

The effect of changes in the fair values of derivatives designated as cash flow hedges are accumulated in other comprehensive income (loss), net of tax, until the underlying transactions are realized. The movement in other comprehensive income (loss) from period to period will be the result of the combination of changes in fair value of open derivatives and the outflow of other comprehensive income (loss) related to cumulative changes in the fair value of derivatives that have settled in the current period. The accumulated effect was other comprehensive loss of \$23 million (net of \$5 million tax), \$10 million (net of \$4 million tax) and \$21 million (net of \$2 million tax) for the years ended December 31, 2020, 2019 and 2018.

12. Commitments and Contingencies

Our business is governed by laws and regulations promulgated by U.S. federal and state governments and regulatory agencies, as well as international governmental authorities in the many countries in which we conduct business, including those related to the oilfield service industry. In the United States these governmental authorities include: the U.S. Department of Labor, the Occupational Safety and Health Administration, the Environmental Protection Agency, the Bureau of Land Management, the Department of Treasury, Office of Foreign Asset Controls, state and international environmental agencies and many others. We are unaware of any material unreserved liabilities in connection with our compliance with such laws. New laws, regulations and enforcement policies may result in additional, presently unquantifiable or unknown, costs or liabilities.

The Company is involved in various claims, regulatory agency audits and pending or threatened legal actions involving a variety of matters. The Company maintains insurance that covers many of the claims arising from risks associated with the business activities of the Company, including claims for premises liability, product liability and other such claims. The Company carries substantial insurance to cover such risks above a self-insured retention. The Company believes, and the Company's experience has been, that such insurance has been enough to cover any such material risks. See Item 1A. Risk Factors.

The Company is also a party to claims, threatened and actual litigation, private arbitration, internal investigations of potential regulatory and compliance matters which arise from legacy businesses that the Company has acquired over many years and from the Company's current ordinary day-to-day business activities. These regulatory matters and disputes involve private parties and/or government authorities, which assert claims against the Company for a broad spectrum of potential claims including: employment law claims, collective actions or class action claims under employment laws, intellectual property claims, (such as alleged patent infringement, and/or misappropriation of trade secrets), premises liability claims, environmental claims, product liability claims, warranty claims, personal injury claims arising from exposure to or use of allegedly defective products, alleged regulatory violations, alleged violations of anti-corruption and anti-bribery laws and other commercial claims seeking recovery for alleged actual or exemplary damages or fines and penalties. Such claims involve various theories of liability which include: negligence, strict liability, product liability, and other theories of liability. For some of these contingent claims, the Company's insurance coverage is inapplicable or an exclusion to coverage may apply. In such instances, settlement or other resolution of such claims, individually or collectively, could have a material financial or reputational impact on the Company. As of December 31, 2020, the Company recorded reserves in an amount believed to be sufficient, given the range of potential outcomes, for contingent liabilities representing all contingencies believed to be probable. These reserves include all costs expected for reclamation of a closed barite mine and product liability claims, as well as other circumstances involving material claims.

The Company has assessed the potential for additional losses above the amounts accrued as well as potential losses for matters that are not probable but are reasonably possible. The litigation process as well as the outcome of regulatory oversight is inherently uncertain, and our best judgement concerning the probable outcome of litigation or regulatory enforcement matters may prove to be incorrect in some instances. The total potential loss on these matters cannot be determined; however, in our opinion, any ultimate liability, to the extent not otherwise provided for, will not materially affect our financial position, cash flow or results of operations. These estimated liabilities are based on the Company's assessment of the nature of these matters, their progress toward resolution, the advice of legal counsel and outside experts as well as management's experience. Of course, because of uncertainty and risk inherent to litigation and arbitration, the actual liabilities incurred may exceed our estimated liabilities and reserves, which could have a material financial or reputational impact on the Company. In many instances, the Company's products and services embody or incorporate trade secrets or patented inventions. From time to time, we are engaged in disputes concerning protection of trade secrets and confidential information, patents and other intellectual property rights. Such disputes frequently involve complex, factual, technical and/or legal issues which result in high costs to adjudicate our rights and difficulty in predicting the ultimate outcome. Because of the importance of the Company's intellectual property to the Company's performance, an adverse result in such disputes could result in the loss of revenue from royalties or a decline in sales of products protected by patents, which could materially and adversely impact our financial performance.

Further, in some instances, direct or indirect consumers of our products and services, entities providing financing for purchases of our products and services or members of the supply chain for our products and services have become involved in governmental investigations, internal investigations, political or other enforcement matters. In such

circumstances, such investigations may adversely impact the ability of consumers of our products, entities providing financial support to such consumers or entities in the supply chain to timely perform their business plans or to timely perform under agreements with us. We may, from time to time, become involved in these investigations, at substantial cost to the Company. We also are subject to trade regulations, supply chain regulations, and other regulatory compliance in which the laws and regulations of different jurisdictions conflict or these regulations may conflict with contractual terms. In such circumstances, our compliance with U.S. laws and regulations may subject us to risk of fines, penalties or contractual liability in other jurisdictions. Our efforts to actively manage such risks may not always be successful which could lead to negative impacts on revenue or earnings.

The Company is exposed to customs and regulatory risk in the countries in which we do business or to which we transport goods. For example, the effects of the United Kingdom's withdrawal from the European Union, known as Brexit, may have a negative impact on our results from operations. Uncertainty concerning the legal and regulatory risks of Brexit, include: (i) supply chain risks resulting from lack of trade agreements, the implementation of new trade agreements, and other potential changes in customs administrations or tariffs; (ii) revenue risk, loss of customers or increased costs; (iii) delays in delivery of materials to the Company or delay in delivery by the Company; and (iv) the need for renegotiation of agreements; and other business disruptions. In addition, trade regulations, export controls, and other laws may adversely impact our ability to do business in certain countries, e.g.: Iran, Syria, Russia, China and Venezuela. Such trade regulations can be complex and present compliance challenges which could result in future liabilities.

As a result of the recent COVID-19 pandemic, the Company may be exposed to additional liabilities and risks. COVID-19 illnesses or deaths could lead to claims against the Company. In addition, "Shelter-in-Place" and other governmental orders and restrictions in response to the COVID-19 pandemic have resulted in a severe slowdown in economic activity, and a sharp reduction in oil activity and a corresponding decline in demand for oil. This has and will lead to a sharp reduction in drilling activity in North America and reduction of activity internationally. The persistence of this supply/demand imbalance caused oil prices to drop precipitously, to the lowest prices in decades. The COVID-19 pandemic continues to adversely impact many jurisdictions and continues to disrupt normal economic activities. As a result, the demand for energy continues to be constrained with continued adverse consequences for our customers and for the Company.

As a result of these market conditions, demand for our products and services has declined. Our customers may attempt to cancel or delay projects, cancel contracts or may invoke force majeure clauses. Our customers may also seek to delay or may default on their payments to us. Further, we have seen, and expect to see, an increasing number of energy companies filing bankruptcy. Our collection of receivables could be materially delayed and/or impaired.

The Company also may be exposed to liabilities resulting from operational delays due to supply chain disruption and closure or limitations imposed on our facilities and work force, from "shelter in place" orders around the world. The Company's ability to perform services could also be impaired and the Company could be exposed to liabilities resulting from interruption in its ability to perform due to limited manpower and travel restrictions. These potential operational and service delays resulting from the COVID-19 pandemic could result in contractual or other legal claims from our customers. At this time, it is not possible to quantify these risks, but the combination of these factors could have a material impact on our financial results.

13. Common Stock

NOV has authorized 1 billion shares of \$0.01 par value common stock. The Company also has authorized 10 million shares of \$0.01 par value preferred stock, none of which is issued or outstanding.

Cash dividends aggregated \$19 million and \$77 million for the years ended December 31, 2020 and 2019, respectively. The declaration and payment of future dividends is at the discretion of the Company's Board of Directors and will be dependent upon the Company's results of operations, financial condition, capital requirements and other factors deemed relevant by the Company's Board of Directors.

Total compensation cost that has been charged against income for all share-based compensation arrangements was \$105 million, \$130 million and \$110 million for 2020, 2019 and 2018, respectively. The total income tax benefit recognized before consideration of valuation allowance in the consolidated statements of income for all share-based compensation arrangements was \$3 million, \$14 million and \$16 million for 2020, 2019 and 2018, respectively.

The Company's stock-based compensation plan, known as the National Oilwell Varco, Inc. 2018 Long-Term Incentive Plan (the "2018 Plan"), was approved by shareholders on May 11, 2018. The 2018 Plan provides for the granting of stock options, restricted stock, restricted stock units, performance awards, phantom shares, stock appreciation rights, stock payments and substitute awards. The number of shares authorized under the 2018 Plan is 42.7 million. The 2018 Plan is also subject to a fungible ratio concept, such that the issuance of stock options and stock appreciation rights reduces the number of available shares under the 2018 Plan on a 1-for-1 basis, and the issuance of other awards reduces the number of available shares under the 2018 Plan on a 2.5-for-1 basis. At December 31, 2020, approximately 24.0 million shares were available for future grants.

The Company also has outstanding awards under its other stock-based compensation plan known as the National Oilwell Varco, Inc. Long-Term Incentive Plan (the "Plan"), however the Company is no longer granting new awards under the Plan. The Plan provides for the granting of stock options, performance-based share awards, restricted stock, phantom shares, stock payments and stock appreciation rights ("SARs"). The number of shares authorized under the Plan is 69.4 million. The Plan is subject to a fungible ratio concept, such that the issuance of stock options and SARs reduces the number of available shares under the Plan on a 1-for-1 basis, and the issuance of other awards reduces the number of available shares under the Plan on a 3-for-1 basis.

Stock Options

Options granted under our stock-based compensation plans generally vest over a three-year period starting one year from the date of grant and expire ten years from the date of grant. The purchase price of options granted may not be less than the closing market price of NOV common stock on the date of grant.

Stock option information summarized below includes amounts for the National Oilwell Varco Long-Term Incentive Plans and stock plans of acquired companies. Options outstanding at December 31, 2020 under the stock option plans have exercise prices between \$20.23 and \$77.99 per share, and expire at various dates from February 23, 2021 to February 26, 2030.

The following summarizes options activity:

	Years Ended December 31,					
	2020		2019		2018	
	Number of Shares	Average Exercise Price	Number of Shares	Average Exercise Price	Number of Shares	Average Exercise Price
Shares under option at beginning of year	21,310,099	\$ 47.68	21,009,508	\$ 48.88	22,472,047	\$ 48.99
Granted	1,650,262	20.23	1,493,576	28.72	1,610,599	35.09
Forfeited	(1,954,859)	45.75	(944,917)	50.57	(1,318,380)	57.56
Exercised	—	—	(248,068)	29.70	(1,754,758)	44.12
Shares under option at end of year	<u>21,005,502</u>	<u>\$ 45.70</u>	<u>21,310,099</u>	<u>\$ 47.68</u>	<u>21,009,508</u>	<u>\$ 48.88</u>
Exercisable at end of year	<u>17,893,434</u>	<u>\$ 49.25</u>	<u>17,796,607</u>	<u>\$ 50.49</u>	<u>15,223,029</u>	<u>\$ 54.13</u>

The following summarizes information about stock options outstanding at December 31, 2020:

Range of Exercise Price	Weighted-Avg Remaining Contractual Life	Options Outstanding Shares	Weighted-Avg Exercise Price	Options Exercisable Shares	Weighted-Avg Exercise Price
	\$20.23 - \$55.00	5.85	15,816,183	\$ 37.65	12,704,115
\$55.01 - \$70.00	2.68	3,252,338	66.82	3,252,338	66.82
\$70.01 - \$77.99	0.70	1,936,981	75.96	1,936,981	75.96
Total	<u>4.89</u>	<u>21,005,502</u>	<u>\$ 45.70</u>	<u>17,893,434</u>	<u>\$ 49.25</u>

The weighted-average fair value of options granted during 2020, 2019 and 2018, was approximately \$5.83, \$9.06 and \$10.01 per share, respectively, as determined using the Black-Scholes option-pricing model. The total intrinsic value of options exercised during 2020 and 2019 was zero and \$6 million, respectively.

The determination of fair value of share-based payment awards on the date of grant using an option-pricing model is affected by our stock price as well as assumptions regarding a number of highly complex and subjective variables. These variables include, but are not limited to, the expected stock price volatility over the term of the awards, and actual and projected employee stock option exercise activity. The use of the Black Scholes model requires the use of actual employee exercise activity data and the use of a number of complex assumptions including expected volatility, risk-free interest rate, expected dividends and expected term.

Valuation Assumptions:	Years Ended December 31,		
	2020	2019	2018
Expected volatility	35.0%	35.9%	31.8%
Risk-free interest rate	1.2%	2.5%	2.7%
Expected dividend yield	1.0%	0.7%	0.6%
Expected term (in years)	4.8	4.5	4.3

The Company used the actual volatility for traded options for the past 10 years prior to option date as the expected volatility assumption required in the Black Scholes model.

The risk-free interest rate assumption is based upon observed interest rates appropriate for the term of our employee stock options. The dividend yield assumption is based on the history and expectation of dividend payouts. The estimated expected term is based on actual employee exercise activity for the past ten years. Forfeitures are accounted for as they occur.

The following summary presents information regarding outstanding options at December 31, 2020 and changes during 2020 with regard to options under all stock option plans:

	Shares	Weighted-Average Exercise Price	Weighted Average Remaining Contractual Term (years)	Aggregate Intrinsic Value
Outstanding at December 31, 2019	21,310,099	\$ 47.68	5.36	\$ —
Granted	1,650,262	\$ 20.23		
Forfeited	(1,954,859)	\$ 45.75		
Exercised	—	\$ —		
Outstanding at December 31, 2020	<u>21,005,502</u>	\$ 45.70	4.89	\$ —
Exercisable at December 31, 2020	<u>17,893,434</u>	\$ 49.25	4.28	\$ —

At December 31, 2020, total unrecognized compensation cost related to nonvested stock options was \$12 million. This cost is expected to be recognized over a weighted-average period of three years. The total fair value of stock options vested in 2020, 2019 and 2018 was approximately \$18 million, \$32 million and \$26 million, respectively. Cash received from option exercises for 2020, 2019 and 2018 was zero, \$7 million and \$54 million, respectively. The actual tax benefit (expense) realized for the tax deductions from option exercises totaled zero, \$(2) million, and \$2 million for 2020, 2019 and 2018, respectively.

Stock Appreciation Rights

On December 20, 2017, the Company made a tender offer to exchange SARs issued to certain employees on February 24, 2016 (“2016 SARs”) for cash, amended SARs, and new stock options. The transaction was structured to provide the employees an equal long-term incentive compensation value, while alleviating volatility in the Company’s earnings caused by required mark-to-market accounting on outstanding SARs. Of the outstanding 2016 SARs, 94.75% were exchanged resulting in a total cash payment of \$14 million and granting of 3,613,707 new stock options on the exchange date with an exercise price of \$34.32 and a fair value of \$8.47, with vesting matched to the exchanged 2016 SARs.

The following summary presents information regarding outstanding SARs:

	Year Ended December 31,			
	2020		2019	
	Number of Shares	Average Exercise Price	Number of Shares	Average Exercise Price
Shares under SARs at beginning of year	1,330,257	\$ 28.45	1,399,302	\$ 28.49
Granted	7,912	20.23	7,088	28.72
Forfeited	(103,604)	28.38	(76,133)	29.18
Exercised	—	—	—	—
Shares under SARs at end of year	<u>1,234,565</u>	<u>\$ 28.40</u>	<u>1,330,257</u>	<u>\$ 28.45</u>
Exercisable at end of year	<u>1,219,555</u>	<u>\$ 28.44</u>	<u>1,315,701</u>	<u>\$ 28.40</u>

The Company recognized no expense in 2020, 2019, or 2018. There was no liability for cash-settled SARs at December 31, 2020.

Restricted Shares

The Company issues restricted stock awards and restricted stock units to officers and key employees in addition to stock options. On February 25, 2020, the Company granted 2,535,174 shares of restricted stock and restricted stock units with a fair value of \$20.23 per share; and performance share awards to senior management employees with potential payouts varying from zero to 1,063,274 shares. The restricted stock and restricted stock units vest in three equal annual installments commencing on the first anniversary of the date of grant. The performance share awards can be earned based on performance against established goals over a three-year performance period. The 2018 performance share awards are based entirely on a TSR (total shareholder return) goal. Performance against the TSR goal is determined by comparing the performance of the Company's TSR with the TSR performance of the members of the OSX (Oil Service Sector) index for the three-year performance period. The 2019 and 2020 performance share awards are divided into two independent parts that are subject to two separate performance metrics: 85% with a TSR (total shareholder return) goal and 15% with an internal NVA ("National Oilwell Varco Value Added") (return on capital metric) goal. Performance against the TSR goal is determined by comparing the performance of the Company's TSR with the TSR performance of the members of the OSX index for the three-year performance period. The NVA goal is based on the Company's improvement in NVA from the beginning of the performance period until the end of the performance period. NVA shall be calculated as an amount equal to the Company's (a) gross cash earnings less (b) average gross operating assets times an amount equal to a required return on assets.

On May 20, 2020, the Company granted 99,696 restricted stock awards with a fair value of \$13.00 per share. The awards were granted to non-employee members of the board of directors and vest on the first anniversary of the grant date.

The following summary presents information regarding outstanding restricted shares:

	Years Ended December 31,					
	2020		2019		2018	
	Number of Units	Weighted-Average Grant Date Fair Value	Number of Units	Weighted-Average Grant Date Fair Value	Number of Units	Weighted-Average Grant Date Fair Value
Nonvested at beginning of year	6,274,308	\$ 33.10	5,914,860	\$ 34.41	4,889,678	\$ 37.04
Granted	3,166,402	\$ 19.98	3,335,315	\$ 28.52	2,657,115	\$ 35.17
Vested	(3,229,624)	\$ 20.09	(2,901,945)	\$ 25.67	(1,242,682)	\$ 34.86
Forfeited	(137,123)	\$ 45.75	(73,922)	\$ 50.57	(389,251)	\$ 57.56
Nonvested at end of year	<u>6,073,963</u>	<u>\$ 31.85</u>	<u>6,274,308</u>	<u>\$ 33.10</u>	<u>5,914,860</u>	<u>\$ 34.41</u>

At December 31, 2020, there was approximately \$80 million of unrecognized compensation cost related to nonvested restricted stock awards and restricted stock units, which is expected to be recognized over a weighted-average period of two years.

14. Revenue

Disaggregation of Revenue

The following tables disaggregate our revenue by destinations, as we believe it best depicts how the nature, amount, timing and uncertainty of our revenue and cash flows are affected by economic factors. In the tables below, North America includes only the U.S. and Canada (in millions):

Year Ended December 31, 2020					
	Wellbore Technologies	Completion & Production Solutions	Rig Technologies	Eliminations	Total
North America	\$ 824	\$ 751	\$ 227	\$ —	\$ 1,802
International	988	1,639	1,661	—	4,288
Eliminations	55	43	31	(129)	—
	<u>\$ 1,867</u>	<u>\$ 2,433</u>	<u>\$ 1,919</u>	<u>\$ (129)</u>	<u>\$ 6,090</u>
Land	\$ 1,308	\$ 1,426	\$ 473	\$ —	\$ 3,207
Offshore	504	964	1,415	—	2,883
Eliminations	55	43	31	(129)	—
	<u>\$ 1,867</u>	<u>\$ 2,433</u>	<u>\$ 1,919</u>	<u>\$ (129)</u>	<u>\$ 6,090</u>
Year Ended December 31, 2019					
	Wellbore Technologies	Completion & Production Solutions	Rig Technologies	Eliminations	Total
North America	\$ 1,710	\$ 1,122	\$ 529	\$ —	\$ 3,361
International	1,441	1,590	2,087	—	5,118
Eliminations	63	59	66	(188)	—
	<u>\$ 3,214</u>	<u>\$ 2,771</u>	<u>\$ 2,682</u>	<u>\$ (188)</u>	<u>\$ 8,479</u>
Land	\$ 2,531	\$ 1,808	\$ 758	\$ —	\$ 5,097
Offshore	620	904	1,858	—	3,382
Eliminations	63	59	66	(188)	—
	<u>\$ 3,214</u>	<u>\$ 2,771</u>	<u>\$ 2,682</u>	<u>\$ (188)</u>	<u>\$ 8,479</u>
Year Ended December 31, 2018					
	Wellbore Technologies	Completion & Production Solutions	Rig Technologies	Eliminations	Total
North America	\$ 1,817	\$ 1,302	\$ 663	\$ —	\$ 3,782
International	1,345	1,543	1,783	—	4,671
Eliminations	73	86	129	(288)	—
	<u>\$ 3,235</u>	<u>\$ 2,931</u>	<u>\$ 2,575</u>	<u>\$ (288)</u>	<u>\$ 8,453</u>
Land	\$ 2,683	\$ 1,985	\$ 854	\$ —	\$ 5,522
Offshore	479	860	1,592	—	2,931
Eliminations	73	86	129	(288)	—
	<u>\$ 3,235</u>	<u>\$ 2,931</u>	<u>\$ 2,575</u>	<u>\$ (288)</u>	<u>\$ 8,453</u>

The Company did not have any customers with revenues greater than 10% of total revenue for the years ended December 31, 2020, 2019, or 2018.

Contract Assets and Liabilities

Contract assets include unbilled amounts when revenue recognized exceeds the amount billed to the customer under contracts where revenue is recognized over-time. There were no impairment losses recorded on contract assets for the years ending December 31, 2020, 2019 and 2018.

Contract liabilities consist of advance payments, billings in excess of revenue recognized and deferred revenue.

The changes in the carrying amount of contract assets and contract liabilities are as follows (in millions):

	Contract Assets	Contract Liabilities
Balance at December 31, 2019	\$ 643	\$ 427
Provision	(2)	—
Billings	(945)	1,130
Revenue recognized	953	(1,185)
Currency translation adjustments and other	(38)	(18)
Balance at December 31, 2020	<u>\$ 611</u>	<u>\$ 354</u>

15. Income Taxes

The domestic and foreign components of income (loss) before income taxes were as follows (in millions):

	Years Ended December 31,		
	2020	2019	2018
Domestic	\$ (2,169)	\$ (4,501)	\$ (168)
Foreign	(610)	(1,961)	209
	<u>\$ (2,779)</u>	<u>\$ (6,462)</u>	<u>\$ 41</u>

The components of the provision for income taxes consisted of (in millions):

	Years Ended December 31,		
	2020	2019	2018
Current:			
Federal	\$ (279)	\$ (7)	\$ (5)
State	(4)	4	(3)
Foreign	106	60	134
Total current income tax provision	<u>(177)</u>	<u>57</u>	<u>126</u>
Deferred:			
Federal	7	(344)	11
State	—	(18)	—
Foreign	(72)	(64)	(74)
Total deferred income tax provision	<u>(65)</u>	<u>(426)</u>	<u>(63)</u>
Total income tax provision	<u>\$ (242)</u>	<u>\$ (369)</u>	<u>\$ 63</u>

The difference between the effective tax rate reflected in the provision for income taxes and the U.S. federal statutory rate was as follows (in millions):

	Years Ended December 31,		
	2020	2019	2018
Federal income tax at U.S. statutory rate	\$ (584)	\$ (1,357)	\$ 9
Foreign income tax rate differential	(30)	(40)	(3)
Goodwill impairment	271	666	—
Reduction of FTC carryforwards	184	—	—
Tax Benefit from CARES Act	(83)	—	—
Change in deferred tax valuation allowance	(83)	218	49
Nondeductible expenses	44	61	20
Foreign dividends, net of foreign tax credits	28	163	27
Change in uncertain tax positions	20	(60)	(5)
Prior years taxes	(6)	3	(13)
State income taxes - net of federal benefit	(4)	(16)	(3)
Other	1	(7)	(18)
Total income tax provision	<u>\$ (242)</u>	<u>\$ (369)</u>	<u>\$ 63</u>

The effective tax rate for the year ended December 31, 2020 was 8.7%, compared to 5.7% for 2019. For the year ended December 31, 2020 the effective tax rate was negatively impacted by the impairment of nondeductible goodwill and the establishment of additional valuation allowances for current year losses and other tax attributes, partially offset by the release of valuation allowance as a result of (a) the carryback of \$591 million of US net operating losses from 2019 to 2014 as a result of the CARES Act and (b) the filing of an amended US tax return to deduct foreign tax credits and carryback the resulting \$287 million US net operating loss from 2016 to 2014. For the year ended December 31, 2019, the effective tax rate was negatively impacted by the impairment of nondeductible goodwill and the establishment of additional valuation allowance partially offset by the reduction in uncertain tax positions due to settlements.

Significant components of our deferred tax assets and liabilities were as follows (in millions):

	December 31,	
	2020	2019
Deferred tax assets:		
Allowances and operating liabilities	\$ 318	\$ 395
Net operating loss carryforwards	387	270
Stock Compensation	61	69
Tax credit carryforwards	411	702
Other	122	60
Valuation allowance	(1,093)	(1,175)
Total deferred tax assets	<u>206</u>	<u>321</u>
Deferred tax liabilities:		
Tax over book depreciation	60	115
Capital leases	80	86
Intangible assets	49	110
Deferred income	47	65
Accrued tax on unremitted earnings	33	33
Other	15	52
Total deferred tax liabilities	<u>284</u>	<u>461</u>
Net deferred tax liability	<u>\$ 78</u>	<u>\$ 140</u>

A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows (in millions):

	2020	2019	2018
Unrecognized tax benefit at beginning of year	\$ 38	\$ 98	\$ 132
Gross increase for current period tax positions	—	—	15
Gross increase for tax positions in prior years	25	10	31
Gross decrease for tax positions in prior years	(2)	(60)	(10)
Cash Settlements	(1)	(3)	(69)
Lapse of statute of limitations	(3)	(7)	(1)
Unrecognized tax benefit at end of year	<u>\$ 57</u>	<u>\$ 38</u>	<u>\$ 98</u>

The balance of unrecognized tax benefits at December 31, 2020, 2019 and 2018 was \$57 million, \$38 million and \$98 million, respectively. Accruals related to prior year domestic and foreign jurisdiction issues resulted in uncertain tax position increases of \$25 million in 2020. Resolutions of domestic and foreign jurisdiction audits resulted in a \$4 million and \$60 million decrease in uncertain tax provisions for the years ended December 31, 2020 and 2019, respectively.

Substantially all of the unrecognized tax benefits, if ultimately realized, would be recorded as a benefit to the effective tax rate. The Company does not anticipate any material change within the next twelve months due to settlements and conclusions of tax examinations. To the extent penalties and interest would be assessed on any underpayment of income tax, such accrued amounts have been classified as a component of income tax expense in the financial statements consistent with the Company's policy. For the years ended December 31, 2020, 2019 and 2018, we recorded income tax expense of \$2 million, nil and nil, respectively, for interest and penalty related to unrecognized tax benefits. As of December 31, 2020 and 2019, the Company had accrued \$11 million and \$12 million, respectively, of interest and penalty relating to unrecognized tax benefits.

The Company is subject to taxation in the United States as well as various states and foreign jurisdictions. The Company has significant operations in the United States, Norway, Canada, the United Kingdom, the Netherlands, France and Denmark. Tax years that remain subject to examination by major tax jurisdictions vary by legal entity, but are generally open in the U.S. for tax years ending after 2013 and outside the U.S. for tax years ending after 2015.

Net operating loss carryforwards by jurisdiction and expiration as of December 31, 2020 were as follows (in millions):

	Federal	State	Foreign	Total
2020 - 2024 Expiration	\$ 6	\$ 2	\$ 148	\$ 156
2025 - 2039 Expiration	45	303	428	776
Unlimited Expiration	368	—	557	925
Total Net Operating Loss (NOL)	<u>\$ 419</u>	<u>\$ 305</u>	<u>\$ 1,133</u>	<u>\$ 1,857</u>
Tax Effected NOL	\$ 88	\$ 17	\$ 282	\$ 387
Valuation Allowance (VA)	(88)	(17)	(279)	(384)
Tax Effected NOL Net of VA	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 3</u>	<u>\$ 3</u>

The Company has \$404 million of excess foreign tax credits in the United States as of December 31, 2020, of which \$141 million, \$145 million, \$95 million, and \$23 million will expire in 2022, 2027, 2028 and 2030 respectively. As of December 31, 2020, the Company has remaining tax-deductible goodwill of \$118 million, resulting from acquisitions. The amortization of this goodwill is deductible over various periods ranging up to 10 years.

After considering the impact of losses incurred in 2020, the Company has determined that it no longer has net undistributed earnings subject to a permanent reinvestment assertion.

16. Business Segments. and Geographic Areas

The Company's operations are organized into three operating segments: Wellbore Technologies, Completion & Production Solutions and Rig Technologies.

Wellbore Technologies

The Company's Wellbore Technologies segment designs, manufactures, rents, and sells a variety of equipment and technologies used to perform drilling operations, and offers services that optimize their performance, including: solids control and waste management equipment and services; portable power generation; drill pipe; wired pipe; drilling optimization and automation services; tubular inspection, repair and coating services; instrumentation; measuring and monitoring; downhole and fishing tools; steerable technologies; and drill bits.

Wellbore Technologies focuses on oil and gas companies and supports drilling contractors, oilfield service companies, and oilfield equipment rental companies. Demand for the segment's products and services depends on the level of oilfield drilling activity by oil and gas companies, drilling contractors, and oilfield service companies.

Completion & Production Solutions

The Company's Completion & Production Solutions segment integrates technologies for well completions and oil and gas production. The segment designs, manufactures, and sells equipment and technologies needed for hydraulic fracture stimulation, including pressure pumping trucks, blenders, sanders, hydration units, injection units, flowline, and manifolds; well intervention, including coiled tubing units, coiled tubing, and wireline units, BOPs, and tools; onshore production, including fluid processing systems, composite pipe, surface transfer and progressive cavity pumps, and artificial lift systems; and, offshore production, including fluid processing systems, floating production systems, subsea production technologies, and connectors for conductor pipe.

Completion & Production Solutions supports service companies and oil and gas companies. Demand for the segment's products depends on the level of oilfield completions and workover activity by oilfield service companies and drilling contractors, and capital spending plans by oil and gas companies and oilfield service companies.

Rig Technologies

The Company's Rig Technologies segment makes and supports the capital equipment and integrated systems needed to drill oil and gas wells on land and offshore as well as other marine-based markets, including offshore wind vessels. The segment designs, manufactures and sells land rigs, offshore drilling equipment packages, including installation and commissioning services, and drilling rig components that mechanize and automate the drilling process and rig functionality. Equipment and technologies in Rig Technologies include: substructures, derricks, and masts; cranes; jacking systems; pipe lifting, racking, rotating, and assembly systems; fluid transfer technologies, such as mud pumps; pressure control equipment, including blowout preventers; power transmission systems, including drives and generators; rig instrumentation and control systems; mooring, anchor, and deck handling machinery; major equipment components for offshore wind construction vessels; and pipelay and construction systems. The segment also provides spare parts, repair, and rentals as well as comprehensive remote equipment monitoring, technical support, field service, and customer training through an extensive network of aftermarket service and repair facilities strategically located in major areas of drilling operations around the world.

Rig Technologies supports land and offshore drillers. Demand for the segment's products depends on drilling contractors' and oil and gas companies' capital spending plans, specifically capital expenditures on rig construction and refurbishment; and secondarily on the overall level of oilfield drilling activity, which drives demand for spare parts, service, and repair for the segment's large installed base of equipment.

Geographic Areas:

The following table presents consolidated revenues by country based on sales destination of the products or services (in millions):

	Years Ended December 31,		
	2020	2019	2018
United States	\$ 1,634	\$ 3,112	\$ 3,480
Norway	464	512	368
Saudi Arabia	343	436	444
China	288	285	231
Singapore	242	473	321
Brazil	224	269	415
United Kingdom	222	333	309
United Arab Emirates	221	224	248
Canada	168	247	302
South Korea	33	69	169
Other Countries	2,251	2,519	2,166
Total	<u>\$ 6,090</u>	<u>\$ 8,479</u>	<u>\$ 8,453</u>

The following table presents plant, property and equipment by country based on the location (in millions):

	December 31,	
	2020	2019
United States	\$ 1,011	\$ 1,257
Saudi Arabia	176	87
Brazil	92	194
United Kingdom	86	112
Denmark	76	111
Canada	73	77
United Arab Emirates	68	52
South Korea	51	77
Mexico	30	43
Singapore	15	28
Russia	13	16
Other Countries	236	300
Total	<u>\$ 1,927</u>	<u>\$ 2,354</u>

Business Segments:

The following table presents selected financial data by business segment (in millions):

	Wellbore Technologies	Completion & Production Solutions	Rig Technologies	Eliminations and corporate costs (1)	Total
December 31, 2020					
Revenue	\$ 1,867	\$ 2,433	\$ 1,919	\$ (129)	\$ 6,090
Operating profit (loss) ⁽²⁾	(858)	(977)	(362)	(228)	(2,425)
Capital expenditures	87	48	80	11	226
Depreciation and amortization	187	75	77	13	352
Goodwill	308	473	712	—	1,493
Total assets	2,665	2,472	2,923	1,869	9,929
December 31, 2019					
Revenue	\$ 3,214	\$ 2,771	\$ 2,682	\$ (188)	\$ 8,479
Operating profit (loss) ⁽²⁾	(3,551)	(1,934)	(524)	(270)	(6,279)
Capital expenditures	123	64	31	15	233
Depreciation and amortization	284	150	87	12	533
Goodwill	843	1,054	910	—	2,807
Total assets	4,078	3,826	3,758	1,487	13,149
December 31, 2018					
Revenue	\$ 3,235	\$ 2,931	\$ 2,575	\$ (288)	\$ 8,453
Operating profit (loss) ⁽²⁾	131	166	213	(299)	211
Capital expenditures	135	87	17	5	244
Depreciation and amortization	374	212	90	14	690
Goodwill	3,011	2,041	1,212	—	6,264
Total assets	7,929	6,233	3,906	1,728	19,796

- (1) Sales from one segment to another generally are priced at estimated equivalent commercial selling prices; however, segments originating an external sale are credited with the full profit to the Company. Eliminations and corporate costs include intercompany transactions conducted between the three reporting segments that are eliminated in consolidation, as well as corporate costs not allocated to the segments. Intercompany transactions within each reporting segment are eliminated within each reporting segment. Also included in the eliminations and corporate costs column are capital expenditures and total assets related to corporate. Corporate assets consist primarily of cash and fixed assets.
- (2) Segment operating loss for 2020 includes charges for: goodwill, other intangible asset and other long lived asset impairments (Wellbore Technologies \$665 million; Completion and Production Solutions \$1,010 million; and, Rig Technologies \$198 million); inventory write-downs (Wellbore Technologies \$50 million; Completion and Production Solutions \$101 million; and, Rig Technologies \$175 million); and severance and other restructuring costs (Wellbore Technologies \$134 million; Completion and Production Solutions \$21 million; and, Rig Technologies \$29 million). Segment operating loss for 2019 includes charges for: goodwill, other intangible asset and other long lived asset impairments (Wellbore Technologies \$3,565 million; Completion and Production Solutions \$1,865 million; and, Rig Technologies \$389 million); inventory write-downs (Wellbore Technologies \$130 million; Completion and Production Solutions \$148 million; and, Rig Technologies \$355 million); and a voluntary early retirement program (VERP), other severance and facility closure costs (Wellbore Technologies \$64 million; Completion and Production Solutions \$30 million; and, Rig Technologies \$37 million).

SCHEDULE II
NOV INC.
VALUATION AND QUALIFYING ACCOUNTS
Years Ended December 31, 2020, 2019 and 2018
(in millions)

	Balance beginning of year	Additions (Deductions) charged to costs and expenses	Charge off's and other	Balance end of year
Allowance for doubtful accounts:				
2020	\$ 132	\$ 7	\$ (39)	\$ 100
2019	161	21	(50)	132
2018	187	17	(43)	161
Reserve for excess and obsolete inventories:				
2020	\$ 843	\$ 356	\$ (622)	\$ 577
2019	644	659	(460)	843
2018	800	49	(205)	644
Valuation allowance for deferred tax assets:				
2020	\$ 1,175	\$ (82)	\$ -	\$ 1,093
2019	955	218	2	1,175
2018	1,202	49	(296)	955
Environmental accruals				
2020	\$ 104	\$ 13	\$ (27)	\$ 90
2019	66	57	(19)	104
2018	38	37	(9)	66
Warranty reserve:				
2020	\$ 90	\$ 22	\$ (25)	\$ 87
2019	105	41	(56)	90
2018	135	38	(68)	105