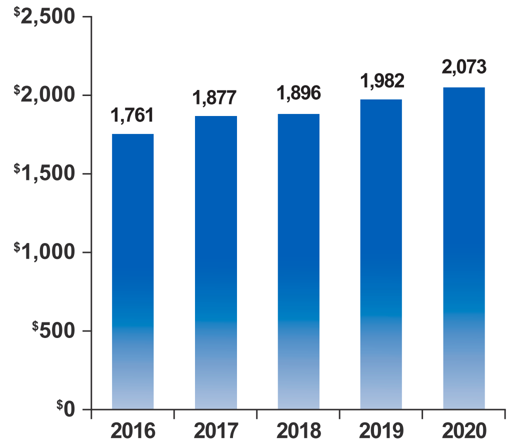
2020 ANNUAL REPORT

Aerojet Rocketdyne Holdings, Inc.

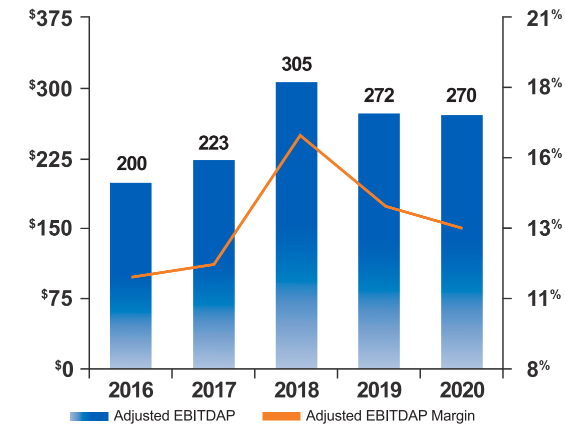
Aerojet Rocketdyne Holdings Financial Performance Highlights

(In millions, except percentage amounts)

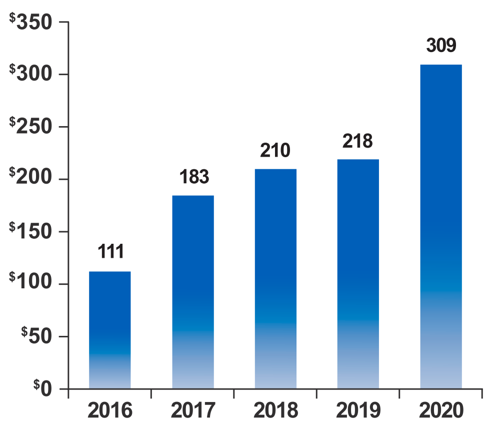
Net Sales



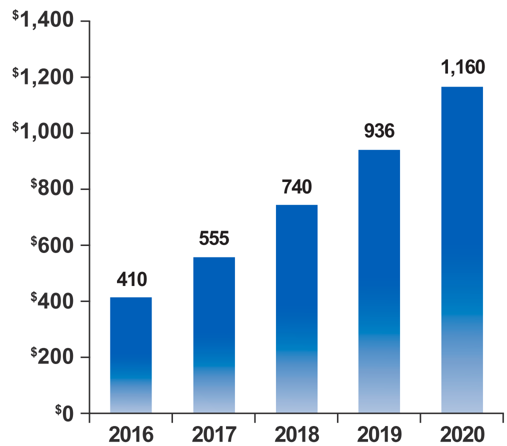
Adjusted EBITDAP(1)



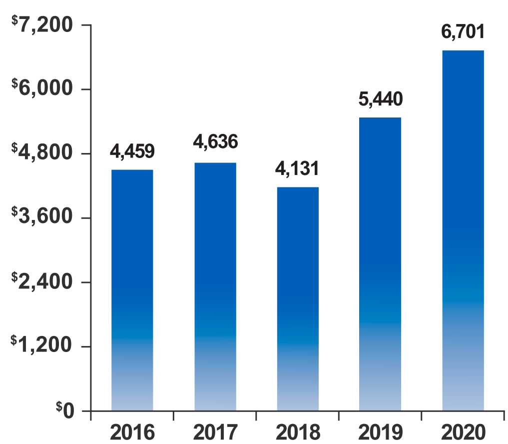
Free Cash Flow(2)



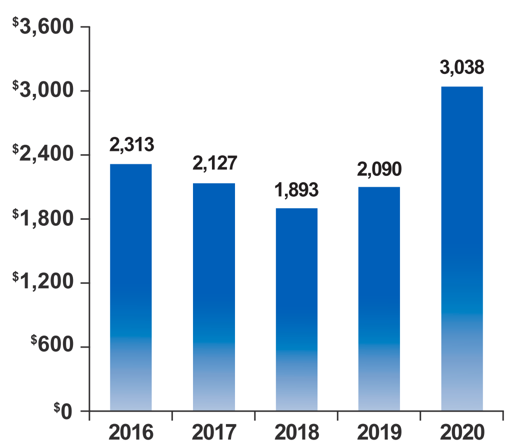
Cash and Marketable Securities(3)



Total Backlog(4)



Funded Backlog



Notes:
(1) Non-GAAP Measure. The Company defines Adjusted EBITDAP as GAAP net income (loss) adjusted to exclude interest expense, interest income, income taxes, depreciation and amortization, retirement benefits net of amounts that are recoverable under our U.S. government contracts, and unusual items.
(2) Non-GAAP Measure. Defined as cash flow from operating activities less capital expenditures.
(3) Cash includes cash equivalents and restricted cash.
(4) Total remaining performance obligation also referred to as backlog.

Dear Fellow Stakeholders,

Aerojet Rocketdyne had another strong year, highlighted by the solidification of a key role on the nation's next generation strategic deterrent program, a contract award for 18 RS-25 engines, history-making hypersonic tests, and culminating in our agreement to be acquired by Lockheed Martin.

The acquisition, which is anticipated to close in the second half of 2021 pending the requisite approvals, commanded a premium price of $56 per share that is a testament to the value Lockheed Martin sees across our operations, in our product and systems offerings and in our world-class team. We are pleased to bring together our complementary companies in a transformative transaction that will provide premium cash value for our shareholders and tremendous benefits for our employees, customers and partners.

Joining Lockheed Martin is a testament to the organization we've built and represents a natural next phase of our evolution.

Joining Lockheed Martin is a testament to the organization we've built and represents a natural next phase of our evolution. As part of Lockheed Martin, we will bring our advanced technologies together with their substantial expertise and resources to accelerate our shared purpose: enabling the defense of our nation and space exploration.

Over the last 15 years, much of our significant growth can be attributed to our disciplined strategy to improve the competitiveness of our company and invest heavily in our core propulsion and power businesses. In 2020, we completed our Competitive Improvement Program that began in March 2015 and has resulted in more than $230 million in annual cost savings. One of the final major milestones in the CIP was the opening last October of our state-of-the-art Engineering, Manufacturing and Development (EMD) facility in Camden, Ark. The 17,000-square-foot EMD facility positions us to deliver on some of the nation's most important next generation national security programs, including the Ground Based Strategic Deterrent (GBSD), hypersonics and missile defense targets.

We are thankful to see the number of COVID-19 cases across the country and at Aerojet Rocketdyne declining since the peak in December. Throughout 2020, Aerojet Rocketdyne implemented widespread COVID-19 safety measures designed to protect our employees, our customers and our communities, and to ensure we continued to deliver essential technology in support of critical national security requirements for defense and space exploration.

I am extremely proud of our team's resilience, and the way our employees adapted to the challenges posed by the COVID-19 pandemic, and happy to report that we met our mission and achieved strong financial results. In fact, at Aerojet Rocketdyne, we not only maintained our successful trajectory in 2020, we built upon it. Through continued growth, even in the midst of a global pandemic, we reached record sales levels and ended the year with a strong backlog, while profitability remained stable. Moreover, we continued to break ground in key technology areas that will ensure our central role in U.S. national security and space exploration in the years ahead.

Financial Results and Outlook

The momentum that we've been building in our financial performance continued in 2020 with sales of $2.1 billion reflecting growth of 5% year over year and the highest level we've seen since the transformative Aerojet Rocketdyne merger in 2013. Adjusted EBITDAP margins stayed strong at 13.3% (after excluding the $6 million incremental stock based compensation from the stock price increase immediately following the acquisition announcement) and free cash flow conversion was 225% of net income at $309 million.

The increase in net sales was largely driven by the RS-25, Medium Range Ballistic Missile and Guided Multiple Launch Rocket System programs and was partially offset by a decline on the Commercial Crew Development program and the cancellation in 2019 of the Redesigned Exoatmospheric Kill Vehicle program.

Our free cash flow generation and ability to maintain solid working capital positions continued to drive a strong balance sheet. We established a goal of converting greater than 100% of net income to free cash flow and have now exceeded that several years in a row while continuing to execute a disciplined capital allocation strategy focused on increasing return on invested capital.

We also ended the year with $6.7 billion of backlog, up 23% from a year ago. Included in backlog growth is the NASA contract modification award received in the second quarter to produce the additional 18 RS-25 engines in support of deep space exploration missions. Backlog expected to convert to revenue in the next 12 months was 32% or $2.2 billion as of December 31, 2020.

Aerospace and Defense

Our defense business continued to execute on its main production programs while positioning the company to win new business in important growth areas.

In the critical field of hypersonics, Aerojet Rocketdyne, along with the Air Force Research Laboratory, made history by achieving record thrust levels – more than 13,000 pounds – on a scramjet engine. For the Defense Advanced Research Projects Agency, we completed a second series of propulsion tests on the Operational Fires hypersonic tactical weapon program and were selected to develop enabling technologies for the Glide Breaker hypersonic interceptor.

As a key member of a nationwide team led by Northrop Grumman, we are now under contract to develop a large solid rocket motor and the post boost propulsion system for the nation's modernized nuclear deterrent, known as the Ground Based Strategic Deterrent.

In air and missile defense, we announced a $1 billion, five-year strategic agreement with prime contractor Raytheon Missiles and Defense to supply propulsion for the U.S. Navy's Standard Missile program. Meanwhile, all three Prime Contractors, Boeing, Lockheed Martin and Northrop Grumman-Raytheon, announced they teamed with us on their proposals for the Missile Defense Agency's Next Generation Interceptor competition.

Our defense business continued to execute on its main production programs while positioning the company to win new business in important growth areas.

We produced 70,000 solid rocket motors during 2020, along with 330 in-space propulsion systems. Notable production milestones included the 5,000th flight motor for the Stinger missile system since the program's relocation to Camden, Ar., and the 600th Boost Motor and 600th Divert and Attitude Control System for the Terminal High Altitude Area Defense system. Specialty metals producer Aerojet Ordnance Tennessee, meanwhile, delivered its 8 millionth M67 hand grenade body for final assembly and delivery to the U.S. Army.

Turning to the space side of the business, we won a $1.79 billion NASA contract modification to deliver 18 newly manufactured RS-25 large liquid rocket engines to power NASA's Space Launch System (SLS) heavy-lift exploration rocket, bringing the total number of new RS-25s on order to 24. We also delivered four RL10 upper stage engines for use on the SLS, including three that will power the Exploration Upper Stage, a significant upgrade to the heavy lift rocket.

NASA's Perseverance Mars Rover began its journey to the red planet and landed with support from numerous Aerojet Rocketdyne propulsion systems and tanks on the United Launch Alliance (ULA) Atlas V launch vehicle, the spacecraft and its landing system. While operating on the Martian surface, Perseverance is being powered by an Aerojet Rocketdyne-supplied Multi-Mission Radioisotope Thermoelectric Generator. We also completed and delivered chemical and electric propulsion systems for NASA's Double Asteroid Redirection Test, a mission to impact the near-earth asteroid Didymos in an attempt to change its motion in space.

A bit closer to home, last year astronauts aboard the International Space Station installed our Lithium-Ion batteries aboard the orbiting outpost. These batteries will provide twice the kilowatt-hours than their predecessors at a fraction of the mass, and are expected to operate for at least ten years.

Also during 2020, ULA's Vulcan rocket was selected to begin launching national security payloads starting in 2022, and its upper stage will be powered by a pair of RL10 engines. We also made significant progress on a next-generation variant of the RL10 engine, leveraging our industry-leading 3D printing technology to reduce cost while maintaining its unmatched performance. Separately, our RL10 engine flew its 500th flight on the launch of the Defense Department's sixth and final Advanced Extremely High Frequency secure communications satellite aboard an Atlas V rocket. The RL10 engine has a long legacy supporting national security, civil, and commercial space launches and it is positioned for a promising future.

Real Estate

Our Real Estate segment maintains focus on entitlement and monetization of our 5,563 acres in Sacramento. We remain committed to finding the right partner or partners to maximize the value of the land via land sales and/or joint ventures with builders and developers, as well as increased interest in buildings and land available for lease for commercial, industrial and flex uses.

Safety and the Environment

Safety is one of our core values and we are committed to providing a safe work environment for our employees as well as being good stewards of the natural environment. The COVID-19 pandemic presented unique challenges as we prioritized protecting our employees and their families from potential COVID-19 exposure while delivering excellent performance to our customers. Since the beginning of the COVID-19 pandemic, we implemented comprehensive safety protocols and flexible workforce practices aligned with guidance published by the Centers for Disease Control and Prevention.

In 2020, we experienced a slight increase in our OSHA Recordable Rate over 2019. This was partly attributed to COVID-19. While 2020 was higher than 2019, it was lower than 2018 and all other prior years and represents the second safest year on record for Aerojet Rocketdyne. We've seen a positive trend of the OSHA recordable rate for six of the last eight years – a 50% reduction over that same period. Through our Aerojet Rocketdyne Safety, Health and Environmental (SH&E) Management System, we continue to systematically identify and mitigate risks through effective job safety analyses, audits and assessments of our manufacturing, assembly, test, and office areas. Our SH&E Management System is focused on continuous improvement through employee involvement and management commitment. Our entire team is committed to achieving an injury-free workplace. We also take very seriously our commitment and obligation to environmental remediation. In 2020 we treated 8.1 billion gallons of groundwater and removed more than 49,000 pounds of contaminants.

NASA's Perseverance Mars Rover began its journey to the red planet and landed with support from numerous Aerojet Rocketdyne propulsion systems and tanks on the United Launch Alliance (ULA) Atlas V launch vehicle, the spacecraft and its landing system.

Our People

Our high-performing teams are the reason for our long-term success; their skill, dedication and ability to innovate are the lifeblood of the company. From the designers and scientists pushing technology's frontiers to the factory floor technicians manufacturing this technology with precision, our employees continue to meet challenges head on, and the results speak for themselves, both in the form of our financial results and recognition from our customers. Last year I was proud to accept, on behalf of our great team, the Association of the U.S. Army's John W. Dixon Award, recognizing outstanding contributions to national defense.

At Aerojet Rocketdyne, we know that innovation has been – and always will be – led by those who break from tradition, who don't just look at problems from a new angle, but who identify problems we didn't even know needed solving. Emphasizing diversity and inclusion is a key driver of the innovation, invention and creativity necessary to our success as a propulsion technology powerhouse. Leaders at Aerojet Rocketdyne are committed to continuing to build an inclusive workplace and a diverse workforce that draws on the experiences and insights of people with different backgrounds.

Our employees are our greatest asset and enable us to provide quality products that help protect our warfighters and push the boundaries of what is possible in space. It's critical and my top priority that every person who works at Aerojet Rocketdyne is valued for who they are as an individual and the unique perspectives that they bring to the team.

We have created a dedicated Inclusion, Diversity and Engagement Council to advise my executive team on strategies and policies, leadership training, community relations and the recruitment and retention of employees. Together with our Employee Resource Groups, who are each sponsored and supported by one of our Executives, we ensure that we continue to apply diverse and valuable perspectives to initiatives that help create an even more inclusive and strong future.

We enable our employees to reach their full potential by providing a wide range of career and skill development opportunities. Our Rocket University learning platform supplements our talent development strategies and enables employees to access instructor-led classroom or virtual courses and self-directed web-based courses. Our annual Succession Planning and Talent Management process is the formal identification and development of our next generation leaders and supports the development of our talent pipeline for key roles across the enterprise. We encourage advancement and movement across our organization to fill our open positions with strong and experienced management talent and individual contributors.

Our high-performing teams are the reason for our long-term success; their skill, dedication and ability to innovate are the lifeblood of the company.

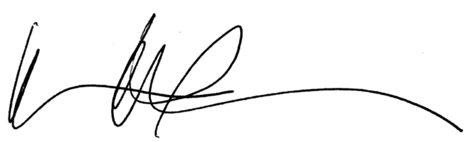
Our company and our employees remain committed to supporting the communities in which we live and work. In 2020, Aerojet Rocketdyne, the Aerojet Rocketdyne Foundation and our employees together donated $1.7 million to organizations that are funding important efforts that include Science, Technology, Engineering and Mathematics (STEM) scholarships, disaster recovery and COVID-19 relief.

In a year that brought major changes to education programs, Aerojet Rocketdyne remained committed to encouraging the next STEM generation, through supporting both local and national events virtually and mentoring tomorrow's leaders remotely.

Conclusion

For Aerojet Rocketdyne, 2020 was a year of strong execution on existing contracts, a year of winning new business and the year we put into place the final pieces of our plan to secure a prosperous future. While 2020 certainly posed challenges, our team's focus and adaptability enabled our company to meet our important mission of enabling the defense of our nation and space exploration. With the arrival of COVID-19 vaccines and our planned acquisition, we look forward to an exciting, opportunity-filled 2021.

Sincerely,



Eileen P. Drake, Chief Executive Officer and President
Aerojet Rocketdyne Holdings, Inc.
March 18, 2021

Learn more at www.rocket.com

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549
FORM 10-K

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

For the fiscal year ended: December 31, 2020

or

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

For the transition period from __________ to __________

Commission File Number 1-01520

Aerojet Rocketdyne Holdings, Inc.
(Exact name of registrant as specified in its charter)

Delaware	**34-0244000**
(State or other jurisdiction of incorporation or organization)	*(I.R.S. Employer Identification No.)*

222 N. Pacific Coast Highway, Suite 500 El Segundo, California 90245
(Address of principal executive offices) *(Zip Code)*

(310) 252-8100
(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, $0.10 par value	AJRD	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 (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

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

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

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

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

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

The aggregate market value of the voting common equity held by nonaffiliates of the registrant as of June 30, 2020, was $3.1 billion.

As of February 12, 2021, there were 77,530,542 outstanding shares of the Company's common stock, including unvested common shares, $0.10 par value.

Portions of the 2021 Proxy Statement of Aerojet Rocketdyne Holdings, Inc. relating to its annual meeting of stockholders scheduled to be held on May 5, 2021, are incorporated by reference into Part III of this Report.

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Aerojet Rocketdyne Holdings, Inc.
Annual Report on Form 10-K
For the Year Ended December 31, 2020

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Part I

Item 1. *Business*

Unless otherwise indicated or required by the context, as used in this Annual Report on Form 10-K ("Report"), the terms "we," "our," "us," and the "Company" refer to Aerojet Rocketdyne Holdings, Inc. and all of its subsidiaries that are consolidated in conformity with accounting principles generally accepted in the United States of America ("GAAP").

All statements in this Report other than historical information should be considered "forward-looking statements" as defined by Section 21E of the Private Securities Litigation Reform Act of 1995. These statements present (without limitation) the expectations, beliefs, plans, and objectives of management and future financial performance and assumptions underlying, or judgments concerning, the matters discussed in the statements. The words "believe," "estimate," "anticipate," "project," "expect," and "reliable" and similar expressions, are intended to identify forward-looking statements. Forward-looking statements involve certain risks, estimates, assumptions, and uncertainties, including with respect to the pending acquisition by Lockheed Martin Corporation ("Lockheed Martin"), the uncertainties arising from the coronavirus ("COVID-19") pandemic, future sales and activity levels, cash flows, contract performance, the outcome of litigation and contingencies, environmental remediation, availability of capital, and anticipated costs of capital. Important risk factors that could cause actual results or outcomes to differ from those expressed in the forward-looking statements are described in the section "Risk Factors" in Item 1A of this Report. Additional risk factors may be described from time to time in our future filings with the Securities and Exchange Commission ("SEC").

Overview

Our operations are organized into two segments:

Aerospace and Defense — includes the operations of the Company's wholly-owned subsidiary Aerojet Rocketdyne, Inc. ("Aerojet Rocketdyne"), a leading technology-based designer, developer and manufacturer of aerospace and defense products and systems for the United States ("U.S.") government, including the Department of Defense ("DoD"), the National Aeronautics and Space Administration ("NASA"), and major aerospace and defense prime contractors.

Real Estate — includes the activities of our wholly-owned subsidiary Easton Development Company, LLC ("Easton") related to the re-zoning, entitlement, sale, and leasing of our excess real estate assets. We are currently in the process of seeking zoning changes and other governmental approvals on our excess real estate assets.

On December 20, 2020, the Company entered into an Agreement and Plan of Merger (the "Merger Agreement") with Lockheed Martin and Mizar Sub, Inc., a wholly-owned subsidiary of Lockheed Martin ("Merger Sub"), pursuant to which, subject to the terms and conditions thereof, Merger Sub will merge with and into the Company (the "Merger") with the Company being the surviving corporation and a wholly-owned subsidiary of Lockheed Martin.

Subject to the terms and conditions set forth in the Merger Agreement, each share of common stock outstanding as of immediately prior to the effective time of the Merger will be automatically converted into the right to receive cash in an amount equal to $56.00 per share, without interest, less, to the extent paid or payable as outlined below, the amount per share of the Pre-Closing Dividend (defined below).

On December 19, 2020, our Board of Directors declared a one-time cash dividend of $5.00 per share (including shares underlying the 2.25% Convertible Senior Notes ("2¼% Notes") participating on an as-converted basis) (the "Pre-Closing Dividend"). The Pre-Closing Dividend is payable on March 24, 2021, to the holders of our shares and 2¼% Notes as of the close of business on March 10, 2021. The $56.00 per share price under the Merger Agreement is expected to be reduced to $51.00 after the payment of the Pre-Closing Dividend to our stockholders and holders of our 2¼% Notes participating on an as-converted basis (or, in the unlikely event that closing occurs after March 10, 2021, but before March 24, 2021, to the extent the Pre-Closing Dividend is payable after the closing).

Closing of the Merger is anticipated to occur in the second half of 2021, subject to various customary conditions, including our stockholder approval and regulatory approval under the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended.

Aerospace and Defense

Aerojet Rocketdyne is a world-recognized technology-based engineering and manufacturing company that develops and produces specialized power and propulsion systems, as well as armament systems. We develop and manufacture liquid and solid rocket propulsion, air-breathing hypersonic engines, and electric power and propulsion for space, defense, civil and commercial applications. Principal customers and end users include the DoD (including the U.S. Air Force ("USAF"), U.S. Space Force, U.S. Army, Missile Defense Agency ("MDA"), and U.S. Navy), NASA, The Boeing Company ("Boeing"), Lockheed Martin, Raytheon Technologies Corporation ("Raytheon"), and United Launch Alliance ("ULA").

We have demonstrated a legacy of successfully meeting the most challenging missions by producing some of the world's most technologically advanced propulsion systems to meet our nation's critical needs. We believe we maintain a unique competitive position due to our strategic focus on creating and maintaining a broad spectrum of propulsion and energetic products assisted by the growing market demand for our innovative energy management technologies. The highly reliable nature of our revenue comes from the long-term nature of the programs with which we are involved, our attractive contract base and our deep customer relationships. High renewal rates, supported by our market leading technology provide us with a highly stable business base from which to grow. As of December 31, 2020, our remaining performance obligations, also referred to as backlog, totaled $6.7 billion and our funded backlog, which includes only amounts for which funding has been authorized by a customer and a purchase order has been received, totaled $3.0 billion.

Primary Markets and Programs

The markets and key programs we serve are:

Aerospace. We specialize in the development and production of propulsion and power systems for space applications. Our products include a broad market offering of both electric and chemical propulsion, including liquid propellant engines and solid rocket motors, required for launch vehicle and in-space applications supporting defense, civil and commercial missions.

Our space products have a long, successful flight heritage with the U.S. government and we continue to provide strong support of National Security Space requirements enabling communications, navigation, intelligence, surveillance, and reconnaissance ("ISR") missions. We provide first stage and upper stage liquid propulsion for ULA's Delta IV Heavy launch vehicle as well as the liquid upper stage propulsion for the Atlas V launch vehicle in support of the National Security Space Launch ("NSSL") program. During 2020, the U.S. Space Force selected ULA as one of two launch service providers under the NSSL Phase 2 Launch Services Procurement ("LSP") with its new Vulcan Centaur launch vehicle and we will supply two RL10 upper stage engines to ULA for each Vulcan Centaur mission.

We continue to support the exploration of deep space. During 2020, NASA made significant progress in returning the U.S. to the Moon with the Artemis program and we are a critical contributor to multiple elements of this historic endeavor. This year, NASA began a series of final tests on the core stage of the Space Launch System ("SLS") Artemis I rocket, powered by our RS-25 liquid rocket engines. During 2020, we also completed all hardware for the first crewed flight of NASA's SLS rocket and Orion crew module, Artemis II. Additionally, in 2020, we were awarded a follow-on contract from NASA for $1.8 billion to deliver 18 RS-25 engines to power the SLS heavy-lift exploration rocket, bringing the total number of new RS-25s on order to 24.

In support of Low Earth Orbit human spaceflight initiatives, astronauts installed the final sets of our Lithium-Ion ("Li-Ion") batteries into the International Space Station's ("ISS") power system in 2020. Over the course of this three and half year endeavor a total of 24 of our Li-Ion batteries replaced the 48 obsolete nickel hydrogen batteries. In addition, we supply critical propulsion hardware for Boeing's CST-100 Starliner spacecraft for NASA, which will usher in a new era of commercial human spaceflight by ferrying astronauts to and from the ISS for NASA.

In the commercial market, we provide in-space propulsion products to major U.S. commercial satellite manufacturers. Our in-space propulsion products and systems also support critical U.S. government and civil spacecraft programs.

We are playing a critical role in NASA's Mars 2020 mission, launched in July 2020. The Perseverance Rover ("Perseverance") relies on our propulsion systems during launch, entry, descent, and landing phases of the mission. Additionally, while operating on the Mars surface, Perseverance will be powered by an Aerojet Rocketdyne-supplied Multi-Mission Radioisotope Thermoelectric Generator.

Also in 2020, we delivered our dual chemical and electric propulsion system for NASA's Double Asteroid Redirection Test ("DART") spacecraft which will be the first demonstration of a kinetic impactor striking an asteroid at high speed in order to change the asteroids motion in space.

We continued to mature critical technologies for our nation's next generation of advanced hydrocarbon engines for future high-performance launch systems. In February 2016, the USAF awarded Aerojet Rocketdyne a Rocket Propulsion System Other Transaction Agreement ("OTA"), a public-private partnership, to develop the AR1 engine. Following the decision by the Launch Services Program competitors not to incorporate the AR1 in their new launch vehicle designs, we signed a modification to the existing OTA to design, build, and assemble only one AR1 engine. The assembly of the AR1 engine was completed in 2020.

A subset of our key space programs include: (i) RL10 and RS-68 engines/boosters that power the NSSL program, (ii) RS-25 main and RL10 upper stage engines that power NASA's SLS heavy-lift rocket for deep space exploration, (iii) propulsion for the Orion human spacecraft and the Starliner Commercial Crew Transportation Capability capsule, (iv) power systems for ISS and science missions, and (v) multiple in-space electric and chemical propulsion systems to provide orbit raising and satellite positioning.

Defense. We specialize in the development and production of propulsion systems for defense applications including both solid and liquid propellant based systems, along with air-breathing (ramjet and hypersonic scramjet) systems for missile applications. The majority of these systems are the primary axial propulsion for missile systems. We also develop and manufacture liquid and solid divert and attitude control ("DACs") propulsion systems for missile defense applications. These are complex systems that provide multi-directional thrust and variable thrust levels to steer or control an intercept missile. Additionally, we develop and manufacture post-boost propulsion systems for strategic missiles. These systems provide directional control for ground and sea-based strategic missiles. Using our energetics expertise we also design, develop, and produce warhead/lethality systems for tactical missiles. Our tactical armament products have been successfully fielded on multiple active U.S. and international weapon system platforms. The breadth of our products includes tactical missiles, missile defense interceptors, hypersonic systems and strategic boosters and post-boost systems for a variety of applications.

During 2020, we continued to expand our strong legacy propulsion franchises on the Standard Missile, Patriot Advanced Capability-3 ("PAC-3"), Terminal High Altitude Area Defense ("THAAD") and Guided Multiple Launch Rocket System ("GMLRS") missile programs, to include Raytheon awarding a five-year, $1 billion strategic agreement to address Standard Missile propulsion products. These franchise programs continue to be globally deployed in support of U.S. and allied armed forces.

In the hypersonic propulsion arena, we continued to advance the state of the art of air-breathing scramjet engines with tests that achieved record thrust levels in simulated hypersonic flight conditions. Our work on complementary air-breathing propulsion (ramjet/scramjet) for hypersonic missiles continued in 2020 with the completion of flight-ready engines.

In 2020, we were selected to develop a large solid rocket motor and the post-boost propulsion system for the Ground Based Strategic Deterrent ("GBSD") program as a key member of Northrop Grumman Corporation's ("Northrop") nationwide GBSD team. Northrop was selected by the U.S. Air Force as the prime contractor for GBSD’s Engineering and Manufacturing Development phase. Additionally, we continued to expand our portfolio of propulsion products with development contract awards that included (i) the U.S. Navy advanced propulsion system – Stored Chemical Energy Propulsion System for the MK 54 Advanced Lightweight Torpedo and (ii) Defense Advanced Research Projects Agency ("DARPA") propulsion technologies for the Glide Breaker hypersonic defense interceptor.

Finally, in 2020, our Aerojet Rocketdyne Coleman Aerospace ("Coleman") business continued to expand its scope on the medium-range ballistic missile ("MRBM") target program with the development of new subsystems that will allow target simulation of significantly more advanced threats.

A subset of our key defense programs include: (i) Boosters and Solid DACs for the Navy’s Standard Missile family, (ii) Booster and Liquid DACs for THAAD, (iii) PAC-3, (iv) GMLRS, (v) Stinger, (vi) Javelin, (vii) Tactical Tomahawk, (viii) Army Tactical Missile Systems ("ATACMS"), (ix) Tube-launched Optically-tracked Wire-guided ("TOW") warhead, and (x) HAWK.

Information concerning the percentage of net sales attributable to our significant programs appears in Part II, Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations under the caption "Major Customers."

Competition

The competitive dynamics of our business vary by product type and customer, but we experience many of the same challenges as the broader aerospace and defense industry. The large majority of products we manufacture are highly complex, technically sophisticated and extremely difficult or hazardous to build, which require rigorous manufacturing systems and highly specialized manufacturing equipment. While historically these factors posed substantial barriers to entry, modern design tools and manufacturing techniques (such as additive manufacturing) are enabling new entrants with the funding to enter this industry, leading to increased competition. To date, competition from new entrants has been limited to a few participants who tend to be narrowly focused on products that are sub-elements of our overall product portfolio. For example, competitors such as SpaceX and Blue Origin, who have developed liquid fuel propulsion capabilities are primarily focused on the development of space propulsion systems for space launch vehicles and are not pursuing or participating in the missile defense or tactical propulsion products that make up a substantial portion of our overall business. These new competitors have signaled their intent to compete primarily on price and are willing to take on substantial risk exposure on development programs with unproven market potential and are, therefore, disrupting existing cost paradigms and manufacturing methodologies. For the in-space propulsion market, we also see a number of new startups entering the market in both small chemical propulsion and small electric propulsion systems targeted at the rapidly expanding small satellite market.

The following table lists the primary participants in the propulsion market (in alphabetical order):

Parent Company	Propulsion Type
Aerojet Rocketdyne Holdings, Inc.	Solid, liquid, air-breathing, electric
ArianeGroup	Solid, liquid, electric
Avio S.p.A	Solid, liquid
Busek Co. Inc.	Electric
Blue Origin	Liquid
General Dynamics	Solid
IHI Aerospace	Liquid, electric
Moog Inc.	Liquid
Nammo Talley	Solid, liquid
Northrop Grumman Corporation	Solid, liquid, air-breathing
Safran	Electric
SpaceX	Liquid, electric

Industry Overview

Our primary aerospace and defense customers include DoD, NASA, and the prime contractors that supply products to these customers. We rely on U.S. government funding for aerospace and defense and our backlog depends, in large part, on the continued funding by the U.S. government for these programs. While U.S. and state governments continue to address the COVID-19 pandemic, our customers are operating under the Consolidated Appropriations Act, 2021 (Public Law 116-260), which appropriated funding to DoD and NASA for Government Fiscal Year 2021. Public Law 116-260 was signed into law on December 27, 2020. Additionally, the Consolidated Appropriations Act included a section on COVID-19 relief and recovery that includes numerous policy provisions and an appropriation of about $900 billion in COVID-19 assistance funding. Disruptions to our customer’s facilities or delays in supply chain as a result of COVID-19 could delay or decrease expenditures by U.S. government agencies. Such a decrease in DoD and/or NASA expenditures, the elimination or curtailment of a program in which we are or hope to be involved, or changes in payment patterns of our customers as a result of changes in U.S. government outlays, could have a material adverse effect on our operating results, financial condition, and/or cash flows.

Major Customers

Information concerning major customers appears in Part II, Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations under the caption "Major Customers."

Contract Types

Research and development ("R&D") contracts are awarded during the early stages of a program’s development. Production contracts provide for the production and delivery of mature products for operational use. Our contracts are largely categorized as either "fixed-price" (largely used by the U.S. government for production-type contracts) or "cost-reimbursable" (largely used by the U.S. government for development-type contracts). During 2020, approximately 61% of our net sales were from fixed-price contracts and 39% from cost-reimbursable contracts.

Fixed-price contracts are typically (i) firm fixed-price, (ii) fixed-price-incentive fee, or (iii) fixed-price level of effort contracts. For firm fixed-price contracts, Aerojet Rocketdyne performs work for a fixed price and realizes all of the profit or loss resulting from variations in costs during contract performance. For fixed-price-incentive fee contracts, Aerojet Rocketdyne receives increased or decreased fees (or profits) based upon actual performance against established targets or other criteria. For fixed-price level of effort contracts, Aerojet Rocketdyne generally receives a structured fixed price per labor hour, dependent upon the customer’s labor hour needs. All fixed-price contracts present the risk of unreimbursed cost overruns potentially resulting in lower than expected contract profit margin and losses.

Cost-reimbursable contracts are typically (i) cost plus fixed fee, (ii) cost plus incentive fee, or (iii) cost plus award fee contracts. For cost plus fixed fee contracts, Aerojet Rocketdyne typically receives reimbursement of its costs, to the extent the costs are allowable under contractual and regulatory provisions, in addition to receiving a fixed fee. For cost plus incentive fee contracts and cost plus award fee contracts, Aerojet Rocketdyne receives adjustments to the contract fee, within designated limits, based on actual results as compared with contractual targets for factors such as cost, performance, quality, and schedule.

In addition, OTA contracts are becoming more prevalent in the developmental stages of U.S. government procurements. An OTA is a special vehicle used by federal agencies for obtaining or advancing R&D or prototypes. The U.S. government's procurement regulations and certain procurement statutes do not apply to OTAs, and accordingly, other transaction authority gives agencies the flexibility necessary to develop agreements tailored to a particular transaction. Generally, our sales and backlog figures do not include work we have under contracts obligated by the customer under an OTA as our share of the contract costs are recognized as company-funded R&D.

Government Contracts and Regulations

U.S. government contracts generally are subject to Federal Acquisition Regulations ("FAR"), agency-specific regulations that supplement FAR, such as the DoD’s Defense Federal Acquisition Regulations, and other applicable laws and regulations. These regulations impose a broad range of requirements, many of which are unique to U.S. government contracting, including various procurement, import and export, security, contract pricing and cost, contract termination and adjustments, mandatory disclosure, and audit requirements. Our failure to comply with these regulations and requirements could result in reductions of the value of contracts, contract modifications or termination, inability to bill and collect receivables from customers, and the assessment of penalties and fines that could lead to suspension or debarment from U.S. government contracting or subcontracting. In addition, as a U.S. government contractor, we are subject to routine audits, reviews, and investigations by the Defense Contract Audit Agency ("DCAA"), the Defense Contract Management Agency, and other similar U.S. government agencies. Such reviews include but are not limited to our contract performance, compliance with applicable laws, regulations, and standards as well as the review of the adequacy of our accounting systems, purchasing systems, property management systems, estimating systems, earned value management systems, and material management and accounting systems.

The U.S. government’s ability to unilaterally modify or terminate a contract or to discontinue funding for a particular program at any time could have a material adverse effect on our operating results, financial condition, and/or cash flows. The cancellation of a contract, if terminated for cause, could also subject us to liability for the excess costs incurred by the U.S. government in procuring undelivered items from another source. If terminated for convenience, our recovery of costs would be limited to amounts already incurred or committed (including severance costs for terminated employees), and our profit would be limited based on the work completed prior to termination.

Additional information about the risks relating to government contracts and regulations appears in "Risk Factors" in Item 1A of this Report.

Backlog

Information concerning backlog appears in Part II, Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations under the caption "Backlog."

Seasonality

Aerojet Rocketdyne’s business is not subject to predictable seasonality. Primary factors affecting the timing of our sales include the timing of U.S. government awards, the availability of U.S. government funding, contractual product delivery requirements, and customer acceptances.

Research and Development

We view R&D efforts as critical to maintaining our leadership position in markets in which we compete. Our R&D is primarily supported by customer funding. Our company-funded R&D efforts include expenditures for technical activities that are vital to the development of new products, services, processes or techniques, as well as those expenses for significant improvements to existing products or processes. See Note 1 in the consolidated financial statements in Item 8 of this Report for additional information on R&D expenditures.

Suppliers and Raw Materials

The national aerospace supply base continues to consolidate due to economic, environmental, and marketplace circumstances beyond our control. The loss of key qualified suppliers of technologies, components, and materials can cause significant disruption to our program performance and cost.

Availability of raw materials and supplies has been generally sufficient. We sometimes are dependent, for a variety of reasons, upon sole-source or qualified suppliers and have, in some instances in the past, experienced difficulties meeting production and delivery obligations because of delays in delivery or reliance on such suppliers. Further, as a U.S. government contractor, we are often limited to procuring materials from certain suppliers capable of meeting rigorous customer and government specifications.

Additional information about the risks relating to suppliers and raw materials appears in "Risk Factors" in Item 1A of this Report.

Intellectual Property

Where appropriate, Aerojet Rocketdyne obtains patents in the U.S. and other countries for new and useful processes, machines, manufactures or compositions of matter, or any new and useful improvements thereof relating to its products and services. Our patents are maintained through the statutory limit of time, which is typically 20 years from the date of filing of the patent application, where the claimed invention has value in the markets in which we compete. We rely on trade secret protection for financial, technical and personnel information that provides an economic competitive advantage by virtue of not being known by the relevant public and ordinarily require employees to sign confidentiality agreements as a condition to employment. If properly protected, trade secrets can be maintained in perpetuity. Aerojet Rocketdyne takes reasonable steps to prevent disclosure of its trade secrets in order to maintain protection under applicable state and federal laws. As our products and services typically embody complex systems that include many technologies, we do not believe any single existing patent, license, or trade secret is material to our success.

Real Estate

We own 11,394 acres of land adjacent to U.S. Highway 50 between Rancho Cordova and Folsom, California east of Sacramento ("Sacramento Land"). Acquired in the early 1950s and historically used for our aerospace and defense operations, large portions were used solely to provide safe buffer zones around hazardous operations. Modern changes in propulsion technology coupled with the relocation of our propulsion operations led us to determine large portions of the Sacramento Land were no longer needed for operations. Consequently, our plan has been to re-entitle the Sacramento Land for new uses and explore various opportunities to optimize its value.

The Sacramento Land is made up of 5,203 acres previously used for our aerospace and defense operations, 628 acres available for future entitlement, and 5,563 acres for future development under the brand name "Easton". Easton has 3,904 acres that are fully entitled. The term "entitlement" is generally used to denote the required set of regulatory approvals required to allow land to be zoned for new requested uses. Required regulatory approvals vary with each jurisdiction and each zoning proposal and may include permits, land use master plans, zoning designations, state and federal environmental documentation, and other regulatory approvals unique to the land. The entitlement and development process in California is long and uncertain with approvals required from various authorities, including local jurisdictions, and in select projects, permits required by federal agencies such as the U.S. Army Corps of Engineers and the U.S. Department of Interior, Fish and Wildlife Service, and others prior to construction.

As Easton continues to execute re-entitlement and pre-development activities, we are pursuing a variety of monetization options and are exploring how to maximize value from Easton. Value creation and monetization may include outright land sales and/or joint ventures with real estate developers, residential builders, and/or other third parties. We believe the long-term prospect for the Sacramento region represents an attractive and affordable alternative to the San Francisco Bay Area and other large metropolitan areas of California.

The following table summarizes the Sacramento Land (in acres):

	Environmentally Unrestricted	Environmentally Restricted (1)	Total	Entitled
Glenborough and Easton Place	1,043	349	1,392	1,392
Rio del Oro	1,818	491	2,309	2,309
Westborough	1,387	272	1,659	—
Hillsborough (2)	51	97	148	148
Office Park and Auto Mall	47	8	55	55
Total Easton acreage	4,346	1,217	5,563	3,904
Former operations land (3)	24	5,179	5,203	
Land available for future entitlement (4)	386	242	628	
Total Sacramento Land	4,756	6,638	11,394	

(1) Indicates land subject to restrictions imposed by state and/or federal regulatory agencies because of our historical propulsion system testing and manufacturing activities. We are actively working with the various regulatory agencies to have the restrictions removed as early as practicable, and the solutions to use these lands within Easton have been accounted for in the various land use plans and granted entitlements. See Note 8(b) in the consolidated financial statements in Item 8 of this Report for a discussion of the federal and/or state environmental restrictions affecting portions of the Sacramento Land.

(2) The remaining 148 acres designated in Hillsborough will be transferred, per the completed purchase and sale contract from 2015, when the required environmental remediation work is completed.

(3) In 2019, we completed our manufacturing commitments in our Sacramento, California facility and transitioned the Sacramento site to host our shared services function.

(4) We believe it will be several years before any of this excess Sacramento Land is available for future change in entitlement. Some of this excess land is outside the current Urban Services Boundary established by the County of Sacramento and all of it is far from existing infrastructure, making it uneconomical to pursue entitlement for this land at this time.

Leasing

We currently lease office space in Sacramento to various third parties that generated $3.3 million in revenue in 2020.

Environmental Matters

Our current and former business operations are subject to, and affected by, federal, state, and local environmental laws and regulations relating to the discharge, treatment, storage, disposal, investigation, and remediation of certain materials, substances, and wastes. Our policy is to conduct our business with due regard for the preservation and protection of the environment. We continually assess compliance with these regulations, and we believe our current operations are materially in compliance with all applicable environmental laws and regulations.

Under existing U.S. environmental laws, Potentially Responsible Parties ("PRPs"), are jointly and severally liable, and therefore we are potentially liable to the U.S. government or other third parties for the full cost of remediating the contamination at our facilities or former facilities or at third-party sites where we have been designated as a PRP by the Environmental Protection Agency or state environmental agencies. The nature of environmental investigation and cleanup activities requires significant management judgment to determine the timing and amount of any estimated future costs that may be required for remediation measures. Further, environmental standards change from time to time. However, we perform quarterly reviews of these matters and accrue for costs associated with environmental remediation when it becomes probable that a liability has been incurred and the amount of the liability, usually based on proportionate sharing, can be reasonably estimated. These liabilities have not been discounted to their present value as the amounts and timing of cash payments are not fixed or reliably determinable.

On January 12, 1999, we reached a settlement agreement ("Global Settlement") with the U.S. government covering environmental costs associated with our Sacramento site and our former Azusa site. Pursuant to the Global Settlement, we can recover up to 88% of our environmental remediation costs through the establishment of prices for Aerojet Rocketdyne's products and services sold to the U.S. government. Additionally, in conjunction with the sale of the Electronics and Information Systems business in 2001, Aerojet Rocketdyne entered into an agreement with Northrop (the "Northrop Agreement") whereby Aerojet Rocketdyne is reimbursed by Northrop for a portion of environmental expenditures eligible for recovery under the Global Settlement, subject to an annual billing limitation of $6.0 million and a cumulative limitation of $189.7 million.

Operation and maintenance costs associated with environmental compliance and management of contaminated sites are a normal, recurring part of operations. Most of our environmental costs are incurred by our Aerospace and Defense segment, and certain of these future costs are allowed to be included in our contracts with the U.S. government.

The inclusion of environmental costs in our contracts with the U.S. government impacts our competitive pricing; however, we believe that this impact is mitigated by driving improvements and efficiencies across our operations as well as our ability to deliver innovative and quality products to our customers.

We did not incur material capital expenditures for environmental control facilities in 2020 nor do we anticipate any material capital expenditures in 2021 and 2022. See Management's Discussion and Analysis in Part II, Item 7 "Environmental Matters" of this Report for additional information.

Additional information on the risks related to environmental matters can be found under "Risk Factors" in Item 1A of this Report, including the material effects on compliance with environmental regulations that may impact our competitive position and operating results.

Employees

As of December 31, 2020, 8% of our 4,969 employees were covered by collective bargaining agreements. We believe that our relations with our employees and unions are good. Our workforce, along with their commitment to our values, provides the foundation of our Company's success.

Human Capital Management

We believe our success depends on the strength of our workforce. Our integrated human capital management strategy includes the acquisition, development, and retention of talent, as well as the design of compensation and benefits programs, to deliver on our strategy.

Development - We enable our employees to reach their full potential by providing a wide range of career development and opportunities, skill development and resources they need to be successful. Our Rocket University learning platform supplements our talent development strategies and enables employees to access instructor-led classroom or virtual courses and self-directed web-based courses. Our annual Succession Planning and Talent Management process is the formal identification and development of our next generation leaders and supports the development of our talent pipeline for key roles across the enterprise. We encourage advancement and movement across our organization to fill our open positions with strong and experienced management talent and individual contributors.

Inclusion, Diversity and Engagement ("ID&E") – We believe in the strength of engaged and diverse teams in an inclusive work environment to unleash the potential of our employees. Through the efforts of these diverse and collaborative teams, we seek to be on the cutting edge of technology and exceed customer expectations. We have established a corporate-wide ID&E council and a number of executive-sponsored employee resource groups ("ERG") across the enterprise, where employees can foster connections and develop in a supportive environment. Our ERGs support the acquisition of diverse talent internally and externally. To assess and improve employee engagement, we survey our employees and take actions to address areas of employee concern.

*Health and Safet*y - Safety is one of our core values. We are committed to a safe work environment for our employees as well as being good stewards of the natural environment. Like many companies, the COVID-19 pandemic has been especially challenging as we focused our health and safety efforts on protecting our employees and their families from potential COVID-19 exposure while delivering excellent performance to our customers. Since the beginning of the COVID-19 pandemic, we have developed plans and taken focused actions aligned with the Centers for Disease Control and Prevention to protect, manage, and communicate with our employees to contain the impacts of COVID-19.

Corporate Information

We were incorporated in Ohio in 1915 and reincorporated in the State of Delaware on April 11, 2014. Our principal executive offices are located at 222 N. Pacific Coast Highway, Suite 500, El Segundo, California 90245.

Our Internet website address is www.AerojetRocketdyne.com. We have made available through our Internet website, free of charge, our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 as soon as reasonably practicable after such materials were electronically filed with, or furnished to, the SEC. We also make available on our Internet website our corporate governance guidelines and the charters for each of the following committees of our Board of Directors: Audit; Corporate Governance & Nominating; and Organization & Compensation. Copies of the Code of Conduct and the Company's Corporate Governance Guidelines are available on the Company's Internet website at *www.AerojetRocketdyne.com* (copies are available in print to any stockholder or other interested person who requests them by writing to Secretary, Aerojet Rocketdyne Holdings, Inc., 222 N. Pacific Coast Highway, Suite 500, El Segundo, California 90245).

Item 1A. *Risk Factors*

The following discussion describes the material factors, events, and uncertainties that make an investment in us risky, and these risk factors should be considered carefully together with all other information in this Report, including the financial statements and notes thereto. This discussion does not include all risks that we face, and additional risks or uncertainties that are currently not known to us, or that are not currently believed to be material may occur or become material. The occurrence of any of these factors, events, or uncertainties may, in ways we may or may not accurately predict, adversely affect our business, operations, financial condition, and results.

Risks Related to the Merger

Failure to complete the Merger could negatively impact the price of our common stock, as well as our future business and financial results.

On December 20, 2020, we entered into the Merger Agreement, pursuant to which Lockheed Martin will acquire us, as described in Part I, Item 1 of this Report. The Merger Agreement contains a number of conditions that must be satisfied or waived prior to the completion of the Merger, including stockholder approval and regulatory approval. We cannot assure you that all of the conditions to the Merger will be satisfied or waived on a timely basis. If the conditions to the Merger are not satisfied or waived on a timely basis, we may be unable to complete the Merger as quickly as expected or at all.

If the Merger is not completed, our ongoing business may be adversely affected as follows: (i) we may experience negative reactions from the financial markets, including negative impacts on the market price of our common stock; (ii) some of management's attention will have been directed to the Merger instead of being directed to our own operations and the pursuit of other opportunities that could have been beneficial to us; (iii) the manner in which customers, suppliers and other third parties perceive us may be negatively impacted, which in turn could affect our ability to compete for business; (iv) we may experience negative reactions from employees; (v) we will have expended time and resources that could otherwise have been spent on our business; and (vi) we may be required, in certain circumstances, to pay a termination fee of $150 million, as provided in the Merger Agreement. In addition, any significant delay in consummating the Merger could have an adverse effect on our operating results and adversely affect our relationships with customers and suppliers and would likely lead to a significant diversion of management and employee attention.

Additionally, in approving the Merger Agreement, the Board of Directors considered a number of factors and potential benefits, including the fact that the merger consideration to be received by holders of common stock represented a significant premium over the last closing stock price prior to announcement of the Merger. If the Merger is not completed, neither the Company nor the holders of our common stock will realize this benefit of the Merger. Moreover, we would also have nevertheless incurred substantial transaction-related fees and costs and the loss of management time and resources.

Our ability to complete the Merger is subject to certain closing conditions and the receipt of consents and approvals from government entities which may impose conditions that could adversely affect us or cause the Merger to be abandoned.

The Merger Agreement contains certain closing conditions, including, among others, the approval by the holders of a majority of all our outstanding shares to adopt the Merger Agreement and approve the Merger, and the absence of any temporary restraining order, preliminary or permanent injunction or other order issued by any court of competent jurisdiction or other government authority or other legal restraint or prohibition that has the effect of preventing the consummation of the Merger or that makes consummation of the Merger illegal. We cannot assure you that the various closing conditions will be satisfied or will not result in the abandonment or delay of the Merger.

In addition, before the Merger may be completed, regulatory approval under the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended (the "HSR Act"), must be obtained. The regulatory review under the HSR Act may impose conditions on the granting of such approval. Such conditions and the process of obtaining regulatory approvals could have the effect of delaying completion of the Merger or of imposing additional costs or limitations on the combined company following the completion of the Merger, and the conditions may result in the failure of a closing condition under the Merger Agreement. The regulatory approvals may not be received at all, may not be received in a timely fashion, or may contain conditions on the completion of the Merger that are unacceptable to Lockheed Martin.

Expenses related to the pending Merger are significant and will adversely affect our operating results.

We have incurred and expect to continue to incur significant expenses in connection with the pending Merger, including legal and investment banking fees. We expect these costs to have an adverse effect on our operating results. If the Merger is not consummated, we may under certain circumstances be required to pay to Lockheed Martin a termination fee of $150 million. Our financial position and results of operations would be adversely affected if we were required to pay the termination fee.

We are subject to business uncertainties, litigation risk, and contractual restrictions while the Merger is pending, which could adversely affect our business.

The Merger Agreement requires us to operate in the ordinary course of business and restricts us, without the consent of Lockheed Martin, from taking certain specified actions agreed by the parties to be outside the ordinary course of business until the pending Merger occurs or the Merger Agreement terminates. These restrictions may prevent us from pursuing otherwise attractive business opportunities and making other changes to our business before completion of the Merger or, if the Merger is not completed, termination of the Merger Agreement. As of February 16, 2021, eight lawsuits challenging the Merger were filed on behalf of purported stockholders, as described in Note 8 to this Report. One of the conditions to the closing of the Merger is the absence of any temporary restraining order, preliminary or permanent injunction or other order issued by any court of competent jurisdiction or other government authority or other legal restraint or prohibition that has the effect of preventing the consummation of the Merger or that makes consummation of the Merger illegal. Accordingly, if any of the plaintiffs is successful in obtaining an injunction prohibiting the consummation of the Merger, then such injunction may prevent the Merger from becoming effective, or delay its becoming effective within the expected time frame.

Uncertainties associated with the Merger may cause a loss of management and other key employees and disrupt our business relationships, which could adversely affect our business.

Uncertainty about the effect of the Merger on our employees, customers and suppliers may have an adverse effect on our business. These uncertainties may impair our ability to attract, retain and motivate key personnel until the Merger is completed and for a period of time thereafter. Employee retention may be particularly challenging during the pendency of the Merger. If key employees depart and as we face additional uncertainties relating to the Merger, our business relationships may be subject to disruption as customers, suppliers and other third parties attempt to negotiate changes in existing business relationships or consider entering into business relationships with parties other than the Company. If key employees depart or if our existing business relationships suffer, our results of operations may be adversely affected. The adverse effects of such disruptions could be further exacerbated by any delay in the completion of the Merger.

The Merger Agreement contains provisions that could discourage a potential competing acquirer of us.

The Merger Agreement contains "no shop" provisions that, subject to limited exceptions, restrict our ability to solicit, initiate, or knowingly encourage or induce competing third-party proposals (or knowingly cooperate in connection with such third party proposals) for the acquisition of our stock or assets. In addition, before our Board of Directors withdraws, qualifies or modifies its recommendation on the Merger or terminates the Merger Agreement to enter into a third-party acquisition proposal, Lockheed Martin generally has an opportunity to offer to modify the terms of the Merger. In some circumstances, upon termination of the Merger Agreement, we will be required to pay a termination fee of $150 million.

These provisions could discourage a potential third-party acquirer that might have an interest in acquiring all or a significant portion of us from considering or proposing that acquisition, even if the acquirer was prepared to pay consideration with a higher per share cash or market value than the market value proposed to be received or realized in the Merger, or might otherwise result in a potential third-party acquirer proposing to pay a lower price to our stockholders than they might otherwise have proposed to pay due to the added expense of the termination fee that may become payable in certain circumstances.

If the Merger Agreement is terminated and we decide to seek another business combination, we may not be able to negotiate or consummate a transaction with another party on terms comparable to, or better than, the terms of the Merger Agreement.

Payment of the Pre-Closing Dividend will result in a significant outflow of cash and is not conditioned upon the closing of the Merger, which means that if the Merger fails to close after payment of the Pre-Closing Dividend, the Company will be required to operate with less liquidity than was previously available to us.

The Pre-Closing Dividend was declared by the Board of Directors in connection with the announcement of the Merger. The Pre-Closing Dividend will be paid on March 24, 2021, and is expected to result in the payment of an aggregate of $447.8 million. The Merger is not expected to close until the second half of 2021. If the conditions to the Merger are not satisfied or waived on a timely basis, we may be unable to complete the Merger as quickly as expected or at all. As a result, we will be required to operate the business with less cash on hand than we would have had if the Pre-Closing Dividend had not been paid. This decrease in liquidity could have an adverse effect on our operating results and financial condition.

Risks Related to our Business and Industry

Reductions, delays or changes in U.S. government spending, including failure to timely appropriate funding, may reduce, delay or cancel certain programs in which we participate and as a result adversely affect our financial results.

Our primary aerospace and defense customers include the DoD and its agencies, NASA, and the prime contractors that supply products to these customers. We rely on particular levels of U.S. government spending on propulsion systems for defense, space and armament systems for precision tactical weapon systems and munitions applications, and our backlog depends, in a large part, on continued funding by the U.S. government for the programs in which we are involved. These spending levels are not generally correlated with any specific economic cycle, but rather follow the cycle of general public policy and political support for this type of spending. Moreover, although our contracts often contemplate that our services will be performed over a period of several years, the U.S. President must propose and Congress must appropriate funds for a given program each GFY and may significantly change, increase, reduce or eliminate, funding for a program. The failure by Congress to approve future budgets on a timely basis could delay procurement of our products and services and cause us to lose future sales. If a prolonged government shutdown were to occur, it could result in program cancellations, disruptions and/or stop work orders and could limit the U.S. government’s ability to make timely payments, and our ability to perform on our U.S. government contracts.

In addition, a decrease in the DoD and/or NASA expenditures, the elimination or curtailment of a material program in which we are involved, or changes in payment patterns of our customers as a result of changes in U.S. government spending, could have a material adverse effect on our operating results, financial condition, and/or cash flows.

In addition, U.S. government agency budgets could be negatively impacted by several factors, including, but not limited to, a change in defense spending policy as a result of the presidential election or otherwise, the U.S. government’s budget deficits, spending priorities (e.g., allocating more spending to combat the effects of the COVID-19 pandemic), the cost of sustaining the U.S. military presence internationally and possible political pressure to reduce U.S. government military spending, each of which could cause agency budgets to remain unchanged or to decline. A significant decline in U.S. military expenditures could result in a reduction in the amount of our products sold to the various agencies and buying organizations of the U.S. government.

The cancellation or material modification of one or more significant contracts could adversely affect our financial results.

Sales, directly and indirectly, to the U.S. government and its agencies accounted for approximately 96% of our total net sales in 2020. Our contracts typically permit the U.S. government to unilaterally modify or terminate a contract or to discontinue funding for a particular program at any time. The cancellation of a contract, if terminated for cause, could also subject us to liability for the excess costs incurred by the U.S. government in procuring undelivered items from another source. If terminated for convenience, our recovery of costs would be limited to amounts already incurred or committed (including severance costs for terminated employees), and our profit would be limited based on the work completed prior to termination.

In addition, termination or suspension of any of our significant commercial contracts could result in the loss of future sales and unreimbursable expenses that could have a material adverse effect on our operating results, financial condition, and/or cash flows. Furthermore, the termination of any such contracts for default could also have a material adverse effect on our reputation and ability to obtain new business in the future.

If our subcontractors or suppliers fail to perform their contractual obligations, our contract performance and our ability to win new contracts may be adversely affected.

We rely on subcontractors to perform a portion of the services we agree to provide our customers, and on suppliers to provide raw materials and component parts for our contract performance. A failure by one or more of our subcontractors or suppliers to satisfactorily provide on a timely basis the agreed-upon services or supplies may affect our ability to perform our contractual obligations. Deficiencies in the performance of our subcontractors and/or suppliers could result in liquidated damages or our customers terminating their contract with us for default. A termination for default could expose us to liability and adversely affect our financial performance and our ability to win new contracts.

Disruptions in the supply of key raw materials, difficulties in the supplier qualification process or increases in prices of raw materials could adversely affect our financial results.

We use a significant quantity of raw materials that are subject to market fluctuations and government regulations. Further, as a U.S. government contractor, we are often required to procure materials from suppliers capable of meeting rigorous customer and government specifications. As market conditions change for these companies, they often discontinue materials with low sales volumes or profit margins. We are often forced to either qualify new materials or pay higher prices to maintain the supply. We may be unable to establish replacement materials and secure customer funding to address specific qualification needs of the programs.

The supply of ammonium perchlorate, a principal raw material used in solid propellant for many years, has been limited to a domestic independent single source that supplies the majority of the domestic solid propellant industry, and actual pricing is based on the total industry demand. The completion of the Space Shuttle Program reduced demand, resulting in significant unit price increases. The abnormal escalation pricing language in our contracts and proposals may not be successful in passing the entire price increase on to the customer or may have a reduced profit margin as a result of any such price increase. Efforts to minimize impacts through contracting levers may not be successful.

We are also impacted, as is the rest of the industry, by fluctuations in the sustained availability, prices and lead-times of raw materials used in production on various fixed-price contracts, particularly on multi-year programs. We continue to experience volatility in the price and lead-times of certain commodity metals, electronic components, and constituent chemicals. Additionally, we may not be able to continue to negotiate with our customers for economic and/or price adjustment clauses tied to obsolete materials and commodity indices to reduce program impact. The DoD also continues to rigorously enforce the provisions of the "Berry Amendment" which imposes a requirement to procure certain strategic materials critical to national security only from U.S. sources. Similarly, European laws and regulations that apply to our business have additional strategic material sourcing requirements. Cost remains a concern as this industry continues to quote "price in effect" at time of shipment terms, increasing the cost risk to our programs.

An emerging challenge to the extended supply chain is U.S. government contracting regulations to comply with stringent cyber security regulations that may influence the cost of material and services on U.S. government contracts. Further, a relatively recent MDA requirement to pre-approve supplier background screening processes of personnel that will have access to "controlled unclassified information" and separately approve any supplier personnel with dual citizenship has been challenging due to delays at MDA in approving requests which will potentially impact the award of subcontracts while approval is pending. Cyber security requirements will prove to be a continuing challenge as some small key/critical suppliers do not have the capability or infrastructure to support the requirements.

We may be impacted by significant changes across our supply chain due to increased tariffs on materials imported directly, or any significant effects tariffs may have on domestic materials indirectly.

Prolonged disruptions in the supply of any of our key raw materials, difficulty qualifying new sources of supply, implementing use of replacement materials or new sources of supply, and/or a continuing volatility in the prices of raw materials could have a material adverse effect on our operating results, financial condition, and/or cash flows.

The release, unplanned ignition, explosion, or improper handling of dangerous materials used in our business could disrupt our operations and adversely affect our financial results.

Our business operations involve the handling, production, and disposition of potentially explosive and ignitable energetic materials and other dangerous chemicals, including motors and other materials used in rocket propulsion. The handling, production, transport, and disposition of hazardous materials could result in incidents that temporarily shut down or otherwise disrupt our manufacturing operations and could cause production delays. A release of these chemicals or an unplanned ignition or explosion could result in death or significant injuries to employees and others. Material property damage to us and third parties could also occur. The use of these products in applications by our customers could also result in liability if an explosion, unplanned ignition or fire were to occur. Extensive regulations apply to the handling of explosive and energetic materials, including but not limited to, regulations governing hazardous substances and hazardous waste. The failure to properly store and ultimately dispose of such materials could create significant liability and/or result in regulatory sanctions. Any release, unplanned ignition or explosion could expose us to adverse publicity or liability for damages or cause production delays, any of which could have a material adverse effect on our operating results, financial condition, and/or cash flows.

The real estate market involves significant risk, which could adversely affect our financial results.

Our real estate activities involve significant risks, which could adversely affect our financial results. We are subject to various risks, including the following:

- we may be unable to obtain, or suffer delays in obtaining, necessary re-zoning, land use, building, occupancy, and other required governmental permits and authorizations, which could result in increased costs or our abandonment of these projects;
- we may be unable to complete environmental remediation or to have state and federal environmental restrictions on our property lifted, which could cause a delay or abandonment of these projects;
- we may be unable to obtain sufficient water sources to service our projects, which may prevent us from executing our plans;
- our real estate activities may require significant expenditures and we may not be able to obtain financing on favorable terms, which may render us unable to proceed with our plans;
- economic and political uncertainties could have an adverse effect on consumer buying habits, construction costs, availability of labor and materials and other factors affecting us and the real estate industry in general;
- our property is subject to federal, state, and local regulations and restrictions that may impose significant limitations on our plans;
- much of our property is raw land that includes the natural habitats of various endangered or protected wildlife species requiring mitigation;
- if our land use plans are approved by the appropriate governmental authorities, we may face lawsuits from those who oppose such plans (such lawsuits and the costs associated with such opposition could be material and have an adverse effect on our ability to sell property or realize income from our projects); and
- the time frame required for approval of our plans means that we will have to wait years for a significant cash return.

Our results of operations and financial position may be negatively impacted by the COVID-19 pandemic, and the resulting economic disruption.

The World Health Organization declared COVID-19 a pandemic on March 11, 2020. Subsequently, all the states and local governments in communities where we operate issued various state of emergency decrees or "Stay at Home" orders restricting non-essential business activities. As a defense industrial-base U.S. government contractor, we are considered an essential business by the U.S. and state governments and we continue to operate as such during the COVID-19 pandemic. Some U.S., state, and local government restrictions have been lifted and eased, resulting in an increase in cases of COVID-19 throughout the U.S., which could in turn increase the risk of future outbreaks or exposure of our workforce to COVID-19 which may impact employee health and absenteeism. There is a risk that new strains of the virus could result in new outbreaks and that the efforts being undertaken to combat the virus may not be as successful or effective as intended. The future impact of the COVID-19 pandemic and responses to it therefore remains highly uncertain, as we cannot predict if further governmental restrictions will be issued or if developments will cause a material change in our ability to maintain and operate our business.

We continue to actively monitor the COVID-19 pandemic and its future potential impact on our employees, customers, and supply chain. The increase in the number of our employees who are working remotely as a result of the COVID-19 pandemic has increased cyber and other security-related risks that are associated with operating in a remote environment. As a result, we have increased reliance on our remote employees following our procedures and protocols to protect our confidential information and information entrusted to us. If our workforce fails to properly adhere to these procedures, we could have increased vulnerability to data loss, security breaches, cyber-attacks and other similar events and intrusions.

While some of our employees are able to work remotely, a significant number can only perform their job functions on site, and we have promulgated policies designed to provide for appropriate social distancing, employee protection, mask-wearing, enhanced cleaning protocols, and health monitoring. We evaluate and modify these policies as needed on an ongoing basis, but there remains the risk of disruption or reduced efficiency caused by social distancing and other protective measures as well as elevated employee absence because of illness or required quarantines.

While our customers and suppliers generally continue to operate and perform their missions, some facilities have temporarily reduced or halted operations due to precautionary measures, staffing illness, or cleaning disruptions. For example, NASA's Stennis Space Center, an engine test site for our space programs, continues to operate at Stage 3 of their coronavirus response framework which limits access to the facility for personnel supporting activities necessary for mission-essential and approved mission-critical work. The length and severity of such delays and closures, and any impact they will have on our operations, remains uncertain. We cannot predict whether the current or future closures of our customer facilities related to the COVID-19 pandemic will have a material adverse effect on our financial results and operations. In addition, as we have a diverse supply chain utilizing companies of varying size, resources and complexity, there is no guarantee that our supply network will have sufficient resources or the ability to maintain their operations.

In addition, the COVID-19 pandemic and resulting global disruptions have caused significant economic uncertainty and volatility in financial markets. Moreover, additional or unforeseen effects from the COVID-19 pandemic and actions taken by governments, companies, and individuals in response to the pandemic may affect our results of operations and financial positions in unexpected ways.

Risks Related to Our Operations

If we experience cost overruns on our contracts, we would have to absorb the excess costs which could adversely affect our financial results and our ability to win new contracts.

In 2020, approximately 61% of our net sales were from fixed-price contracts, most of which are in mature production mode. Under fixed-price contracts, we agree to perform specified work for a fixed price and realize all of the profit or loss resulting from variations in the costs of performing the contract. As a result, all fixed-price contracts involve the inherent risk of unreimbursed cost overruns. To the extent we incur unanticipated cost overruns on a program or platform subject to a fixed-price contract, our profitability would be adversely affected. Future profitability is subject to risks including the ability of suppliers to deliver components of acceptable quality on schedule and the successful implementation of automated tooling in production processes.

In 2020, approximately 39% of our net sales were from cost reimbursable contracts. Under cost reimbursable contracts, we agree to be reimbursed for allowable costs and paid a fee. When our costs are in excess of the final target cost, fees and our margin may be adversely affected. If our costs exceed authorized contract funding or do not qualify as allowable costs under applicable regulations, those costs are expensed, and we will not be reimbursed for those costs. Cost overruns may adversely affect our financial performance and our ability to win new contracts.

Also, certain costs such as those related to charitable contributions, advertising, interest expense, and public relations are generally not allowable, and therefore not recoverable through U.S. government contracts. Unexpected variances in unallowable costs may adversely affect our financial performance.

Our business and operations could be adversely impacted in the event of a failure of our information technology infrastructure or failure to perform by our third party service providers.

We are dependent on various critical information technologies, including cyber security functions, administered and supported by third party service providers. The use of third party service providers can cause unexpected security vulnerabilities, loss of control and additional costs in the delivery of information services and data storage. Any disruption of our information technology infrastructure may cause operational stoppages, fines, penalties, diminished competitive advantages through reputational damages and increased operational costs. Additionally, we may incur additional costs to comply with our customers', including the U.S. government's, increased cyber security protections and standards in our products.

Substantially all of our excess real estate, that we are in the process of entitling for new opportunities, is located in Sacramento County, California, making us vulnerable to changes in economic and other conditions in that particular market.

As a result of the geographic concentration of our properties, our long-term real estate performance and the value of our properties will depend upon conditions in the Sacramento region, including:

- the sustainability and growth of industries located in the Sacramento region;
- the financial strength and spending of the State of California;
- local real estate market conditions;
- changes in neighborhood characteristics;
- changes in interest rates; and
- real estate tax rates.

If unfavorable economic or other conditions affect the region, our plans and business strategy could be adversely affected.

In order to be successful, we must attract and retain key employees.

Our business has a continuing need to attract large numbers of skilled personnel, including personnel holding security clearances, to support the growth of the enterprise and to replace individuals who have terminated employment due to retirement or for other reasons. To the extent that the demand for qualified personnel exceeds supply, we could experience higher labor, recruiting, or training costs in order to attract and retain such employees, or could experience difficulties in performing under our contracts if our needs for such employees were unmet. In addition, our inability to appropriately plan for the transfer or replacement of appropriate intellectual capital and skill sets critical to us could result in business disruptions and impair our ability to achieve business objectives.

A strike or other work stoppage, or our inability to renew collective bargaining agreements on favorable terms, could adversely affect our financial results.

As of December 31, 2020, 8% of our employees were covered by collective bargaining agreements. In the future, if we are unable to negotiate acceptable new agreements with the unions, upon expiration of the existing contracts, we could experience a strike or work stoppage. Even if we are successful in negotiating new agreements, the new agreements could call for higher wages or benefits paid to union members, which would increase our operating costs and could adversely affect our profitability. If our unionized workers were to engage in a strike or other work stoppage, or other non-unionized operations were to become unionized, we could experience a significant disruption of operations at our facilities or higher ongoing labor costs. A strike or other work stoppage in the facilities of any of our major customers or suppliers could also have similar effects on us.

Risks Related to Our Liquidity and Financing

We use estimates when accounting for certain contracts and changes in these estimates may have a significant impact on our financial results.

Our quarterly and annual sales are affected by a variety of factors that may lead to significant variability in our operating results. In our Aerospace and Defense segment, sales earned under long-term contracts are recognized either on a cost basis, when deliveries are made, or when contractually defined performance milestones are achieved. The timing of deliveries or milestones may fluctuate from quarter to quarter. We evaluate the contract value and cost estimates for performance obligations at least quarterly, and more frequently when circumstances change significantly which is described in more detail in Note 1 in the consolidated financial statements in Item 8 of this Report. Changes in estimates and assumptions related to the status of certain long-term contracts which could have a material adverse effect on our operating results, financial condition, and/or cash flows.

Our pension plans are currently underfunded and we expect to be required to make cash contributions in future periods, which may reduce the cash available for our businesses.

As of December 31, 2020, the pension assets, projected benefit obligations, and unfunded pension obligation were $957.0 million, $1,381.5 million, and $424.5 million, respectively. In 2021, we expect to make cash contributions of approximately $94 million to our tax-qualified defined benefit pension plan. We generally are able to recover contributions related to our tax-qualified defined benefit pension plan as allowable costs on our U.S. government contracts, but there are differences between when we contribute to our tax-qualified defined benefit pension plan under pension funding rules and when it is recoverable under Cost Accounting Standards ("CAS"). Accordingly, in 2021, we expect to recover approximately $43 million of our tax-qualified defined benefit pension plan contributions as allowable costs on our U.S. government contracts.

The funded status of our pension plans may be adversely affected by the investment experience of the plans' assets, by any changes in U.S. law and by changes in the statutory interest rates used by tax-qualified pension plans in the U.S. to calculate funding requirements. Accordingly, if the performance of our plans' assets does not meet our assumptions, if there are changes to the Internal Revenue Service ("IRS") regulations or other applicable law or if other actuarial assumptions are modified, our future contributions to our underfunded pension plans could be higher than we expect.

Additionally, the level of returns on retirement benefit assets, changes in interest rates, increases in Pension Benefit Guaranty Corporations premiums, changes in regulations, changes in mortality rate assumptions, and other factors affect our financial results. The timing of recognition of retirement benefits expense or income in our financial statements differs from the timing of the required funding under the Pension Protection Act or the amount of funding that can be recorded in our overhead rates through our U.S. government contracting business. Significant cash contributions in future periods could materially adversely affect our business, operating results, financial condition, and/or cash flows.

If our operating subsidiaries do not generate sufficient cash flow or if they are not able to pay dividends or otherwise distribute their cash to us, or if we have insufficient funds on hand, we may not be able to service our debt.

All of the operations of our Aerospace and Defense and Real Estate segments are conducted through subsidiaries. Consequently, our cash flow and ability to service our debt obligations will be largely dependent upon the earnings and cash flows of our operating subsidiaries and the distribution of those earnings to us, or upon loans, advances or other payments made by these subsidiaries to us. The ability of our subsidiaries to pay dividends or make other payments or advances to us will depend upon their operating results and cash flows and will be subject to applicable laws and any contractual restrictions contained in the agreements governing their debt, if any.

We have a substantial amount of debt. Our ability to operate is limited by the agreements governing our debt.

We have a substantial amount of debt for which we are required to make interest and principal payments. Interest on long-term financing is not a recoverable cost under our U.S. government contracts. As of December 31, 2020, we had $654.1 million of debt principal. Subject to the limits contained in some of the agreements governing our outstanding debt, we may incur additional debt in the future. Our maintenance of higher levels of indebtedness could have adverse consequences including impairing our ability to obtain additional financing in the future.

Our level of debt places significant demands on our cash resources, which could:

- make it more difficult to satisfy our outstanding debt obligations;
- require us to dedicate a substantial portion of our cash for payments related to our debt, reducing the amount of cash flow available for working capital, capital expenditures, entitlement of our real estate assets, contributions to our tax-qualified pension plan, and other general corporate purposes;
- limit our flexibility in planning for, or reacting to, changes in the industries in which we compete;

- place us at a competitive disadvantage with respect to our competitors, some of which have lower debt service obligations and greater financial resources than we do;
- limit our ability to borrow additional funds;
- limit our ability to expand our operations through acquisitions; and
- increase our vulnerability to general adverse economic and industry conditions.

If we are unable to generate sufficient cash flow to service our debt and fund our operating costs, our liquidity may be adversely affected.

We are obligated to comply with financial and other covenants outlined in our debt indentures and agreements that could restrict our operating activities. A failure to comply could result in a default which would, if not waived by the lenders, likely come with substantial cost and accelerate the payment of our debt.

Our debt instruments generally contain various restrictive covenants which include, among others, provisions which may restrict our ability to:

- access the full amount of our revolving credit facility and/or incur additional debt;
- enter into certain leases;
- make certain distributions, investments, and other restricted payments;
- cause our restricted subsidiaries to make payments to us;
- enter into transactions with affiliates;
- create certain liens;
- purchase assets or businesses;
- sell assets and, if sold, retain excess cash flow from these sales; and
- consolidate, merge or sell all or substantially all of our assets.

Our secured debt also contains other customary covenants, including, among others, provisions restricting our ability to pledge assets or create other liens. In addition, certain covenants in our bank facility require that we maintain certain financial ratios.

Based on our existing debt agreements, we were in compliance with our financial and non-financial covenants as of December 31, 2020. Any of the covenants described in this risk factor may restrict our operations and our ability to pursue potentially advantageous business opportunities. Our failure to comply with these covenants could result in an event of default that, if not cured or waived, could result in the acceleration of our amended and restated senior credit facility entered into on September 20, 2018, (the "Senior Credit Facility") with the lenders identified therein and Bank of America, N.A., as administrative agent and the 2¼% Notes. In addition, our failure to pay principal and interest when due is a default under the Senior Credit Facility, and in certain cases, would cause cross defaults on the 2¼% Notes.

We may be adversely affected by changes in London Inter-Bank Offered Rate ("LIBOR") reporting practices or the method by which LIBOR is determined.

In July 2017, the United Kingdom's Financial Conduct Authority, which regulates the LIBOR, announced that it intends to phase out LIBOR by the end of 2021. After 2021, it is unclear whether banks will continue to provide LIBOR submissions to the administrator of LIBOR, and no consensus currently exists as to what benchmark rate or rates may become accepted alternatives to LIBOR. In the U.S., efforts to identify a set of alternative U.S. dollar reference interest rates include proposals by the Alternative Reference Rates Committee ("ARRC") that has been convened by the Federal Reserve Board and the Federal Reserve Bank of New York. We cannot currently predict the effect of the discontinuation of, or other changes to, LIBOR or any establishment of alternative reference rates in the U.S., the European Union or elsewhere on the global capital markets. The uncertainty regarding the future of LIBOR, as well as the transition from LIBOR to any alternative reference rate or rates, could have adverse impacts on floating rate obligations, loans, deposits, derivatives and other financial instruments that currently use LIBOR as a benchmark rate. Borrowings under our Senior Credit Facility, which consists of a revolver and term loan, constitute our most significant exposure to this transition and there is no guarantee that a shift from LIBOR to a new reference rate will not result in increases to our borrowing costs.

Risks Related to Our Strategy

Our success and growth depends on our ability to execute long-standing programs and periodically secure new contracts in a competitive environment.

Our sales are primarily derived from long-standing contracts (often sole source) where we are the long-term incumbent. The challenge is to successfully utilize our technical, engineering, manufacturing, and management skills to execute these programs for the customer, to continue to innovate and refine our solutions, and to offer the customer increasing affordability in an era of fiscal restraint. If we are unable to successfully execute these long-standing programs, our ability to retain existing customers and attract new customers may be impaired.

In addition, we continue to be subject to intense competition in certain sectors. For example, we face increasing competition from emerging spaceflight companies such as SpaceX and Blue Origin, who have developed liquid fuel propulsion capabilities which are primarily focused on the development of space propulsion systems for heavy lift launch vehicles. For the in-space propulsion market, we also see a number of new startups entering the market in both small chemical propulsion and small electric propulsion systems targeted at the rapidly expanding small satellite market. The U.S. government also has its own manufacturing capabilities in some areas. We may be unable to compete successfully with our competitors and our inability to do so could result in a decrease in sales, profits, and cash flows that we historically have generated from certain contracts. Further, the U.S. government may open to competition programs on which we are currently the sole supplier, which could have a material adverse effect on our operating results, financial condition, and/or cash flows.

We may expand our operations through acquisitions, which may divert management's attention and expose us to unanticipated liabilities and costs. Also, acquisitions may increase our non-reimbursable costs. We may experience difficulties integrating any acquired operations, and we may incur costs relating to acquisitions that are never consummated.

Our business strategy may lead us to expand our Aerospace and Defense segment through acquisitions. However, our ability to consummate any future acquisitions on terms that are favorable to us may be limited by U.S. government regulations, the number of attractive acquisition targets, internal demands on our resources, and our ability to obtain financing. Our success in integrating newly acquired businesses will depend upon our ability to retain key personnel, avoid diversion of management's attention from operational matters, implement internal controls, integrate general and administrative services and key information processing systems and, where necessary, re-qualify our customer programs. In addition, future acquisitions could result in the incurrence of additional debt, costs, and/or contingent liabilities. We may also incur costs and divert management attention to acquisitions that are never consummated. Integration of acquired operations may take longer, or be more costly or disruptive to our business, than originally anticipated.

There may be liabilities of the acquired companies that we fail to, or were unable to, discover during our due diligence investigation of each business that we have acquired or may acquire and for which we, as a successor owner, may be responsible. Our efforts to minimize the impact of these types of potential liabilities through indemnities and warranties from sellers in connection with acquisitions may not fully cover the liabilities due to limitations in scope, amount or duration, financial limitations of the indemnitor or warrantor, or other reasons.

Due to the pending Merger, we do not expect to pursue additional strategic acquisitions at this time. If the Merger were not completed for any reason, we would expect to consider exploring possible strategic acquisitions.

Risks Related to Legislation, Regulation, and Compliance

Our Aerospace and Defense segment is subject to procurement and other related laws and regulations inherent in contracting with the U.S. government, and non-compliance could adversely affect our financial results.

In the performance of contracts with the U.S. government, we operate in a highly regulated environment and are routinely audited and reviewed by the U.S. government and its agencies, such as the DCAA. These agencies review performance under our contracts, our cost structure and our compliance with applicable laws, regulations and standards, as well as the adequacy of, and our compliance with, our internal control systems and policies. Systems that are subject to review include, but are not limited to, our accounting systems, purchasing systems, property management systems, estimating systems, earned value management systems, and material management and accounting system. Any costs ultimately found to be unallowable or improperly allocated to a specific contract will not be reimbursed and must be refunded if already reimbursed. If an audit uncovers improper or illegal activities, we may be subject to civil and criminal penalties, sanctions or suspension or debarment from doing business with the U.S. government. Whether or not illegal activities are alleged, the U.S. government also has the ability to decrease or withhold certain payments when it deems systems subject to its review to be inadequate. In addition, we could suffer serious reputational harm if allegations of impropriety were made against us. If such actions were to result in suspension or debarment, this could have a material adverse effect on our business.

These laws and regulations provide for ongoing audits and reviews of incurred costs as well as contract procurement, performance and administration. The U.S. government may, if it deems appropriate, conduct an investigation into possible illegal or unethical activity in connection with these contracts. Investigations of this nature are common in the aerospace and defense industry, and lawsuits may result. In addition, the U.S. government and its principal prime contractors periodically investigate the financial viability of their contractors and subcontractors as part of its risk assessment process associated with the award of new contracts. If the U.S. government or one or more prime contractors were to determine that we were not financially viable, our ability to continue to act as a U.S. government contractor or subcontractor would be impaired.

Cyber security incidents could disrupt business operations, result in the loss of critical and confidential information, and adversely impact our reputation and results of operations.

We routinely defend against various cyber and other security threats against our defenses to protect the confidentiality, integrity and availability of our information technology infrastructure, supply chain, business or customer information and other threats. We are also subject to similar security threats at customer sites that we operate and manage as a contractual requirement.

The threats we face range from attacks common to most industries to more advanced and persistent, highly organized adversaries, insider threats and other threat vectors targeting us and other defense and aerospace companies; because we protect national security information. In addition, cyber threats are evolving, growing in their frequency and include, but are not limited to, malicious software, destructive malware, attempts to gain unauthorized access to data, disruption or denial of service attacks, and other electronic security breaches that could lead to disruptions in mission critical systems, unauthorized release of confidential, personal or otherwise protected information (ours or that of our employees, customers or partners), and corruption of data, networks or systems. We also could be impacted by cyber threats or other disruptions or vulnerabilities found in products we use or in our partners' or customers' systems that are used in connection with our business.

If we are unable to protect sensitive information or the integrity of our systems, our customers or governmental authorities could question the adequacy of our threat mitigation and detection processes and procedures. There can be no assurance that the variety of efforts, procedures and controls we deploy to monitor and minimize the likelihood and impact of adverse cyber security incidents will be sufficient. The costs related to cyber or other security threats or disruptions may not be fully insured or indemnified by other means. The occurrence of any of these events could adversely affect our internal operations, the services we provide to our customers, our future financial results, or our reputation. Such events could also result in the loss of competitive advantages derived from our R&D efforts or other intellectual property, early obsolescence of our products and services, or contractual penalties. Moreover, we may be required to expend significant additional resources to modify our cyber security protective measures, to investigate and remediate vulnerabilities or other exposures or to make required notifications, and we may be subject to litigation and financial losses.

We may experience warranty claims for product failures, schedule delays or other problems with existing or new products and systems.

Many of the products we develop and manufacture are technologically advanced systems that must function under demanding operating conditions. The sophisticated and rigorous design, manufacturing and testing processes and practices we employ do not entirely prevent the risk that we may not be able to successfully launch or manufacture our products on schedule or that our products may not perform as intended.

When our products fail to perform adequately, some of our contracts require us to forfeit a portion of our expected profit, receive reduced payments, provide a replacement product or service or reduce the price of subsequent sales to the same customer. Performance penalties may also be imposed when we fail to meet delivery schedules or other measures of contract performance. We do not generally insure against potential costs resulting from any required remedial actions or costs or loss of sales due to postponement or cancellation of scheduled operations or product deliveries.

Our operations and properties are currently the subject of significant environmental liabilities, and the numerous environmental and other government requirements to which we are subject may become more stringent in the future.

We are subject to federal, state, and local environmental laws and regulations that, among other things, require us to obtain permits to operate and install pollution control equipment and regulate the generation, storage, handling, transportation, treatment, and disposal of hazardous and solid wastes. These requirements may become more stringent in the future. Additional regulations dictate how and to what level we remediate contaminated soils and the level to which we are required to clean contaminated groundwater. These requirements may also become more stringent in the future. We may also be subject to fines and penalties relating to the operation of our existing and formerly owned businesses. We have been and are subject to toxic tort and asbestos lawsuits as well as other third-party lawsuits, due to either our past or present use of hazardous substances or the alleged on-site or off-site contamination of the environment through past or present operations. We may incur material costs in defending these claims and lawsuits and any similar claims and lawsuits that may arise in the future. Contamination at our current and former properties is subject to investigation and remediation requirements under federal, state and local laws and regulations, and the full extent of the required remediation has not yet been determined. Any adverse judgment or cash outlay could have a significant adverse effect on our operating results, financial condition, and/or cash flows.

Given the many uncertainties involved in assessing liability for environmental claims, our established reserves may not be sufficient, which could adversely affect our financial results and cash flows.

As of December 31, 2020, the aggregate range of our estimated future environmental obligations was $300.6 million to $451.1 million and the accrued amount was $300.6 million. In many cases the nature and extent of the required remediation has not yet been determined. Given the many uncertainties involved in assessing liability for environmental claims, our reserves may prove to be insufficient. The reserves are based only on known sites and the known contamination at those sites. It is possible that additional sites needing remediation may be identified or that unknown contamination at previously identified sites may be discovered. It is also possible that the regulatory agencies may change clean-up standards for chemicals of concern such as ammonium perchlorate and trichloroethylene. This could lead to additional expenditures for environmental remediation in the future and, given the uncertainties involved in assessing liability for environmental claims, our reserves may prove to be insufficient.

Most of our environmental costs are incurred by our Aerospace and Defense segment, and certain of these future costs are allowed to be included in our U.S. government contracts. We currently estimate approximately 12% of our Aerospace and Defense segment environmental costs will not likely be reimbursable.

Our environmental expenses related to non-Aerojet Rocketdyne sites are generally not recoverable and a significant increase in these estimated environmental expenses could have a significant adverse effect on our operating results, financial condition, and/or cash flows.

We face certain significant risk exposures and potential liabilities that may not be adequately covered by insurance.

A significant portion of our business relates to developing and manufacturing propulsion systems for defense and space applications, armament systems for precision tactical weapon systems, and munitions applications. New technologies may be untested or unproven. In addition, we may incur significant liabilities that are unique to our products and services. The amount of our insurance coverage may not be adequate to cover all claims or liabilities, and it is not possible to obtain insurance to protect against all operational risks and liabilities. Accordingly, we may be forced to bear substantial costs resulting from risks and uncertainties of our business, which could have a material adverse effect on our operating results, financial condition, and/or cash flows.

Our Certificate of Incorporation provides that the Court of Chancery of the State of Delaware will be the sole and exclusive forum for certain stockholder litigation matters, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers, employees or stockholders.

Our Certificate of Incorporation provides that, unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware ("Court of Chancery") will be the sole and exclusive forum for (i) any derivative action or proceeding brought on our behalf, (ii) any action asserting a claim of breach of a fiduciary duty owed by any director, officer, or employee of the Company to us or our stockholders, (iii) any action asserting a claim arising pursuant to any provision of the Delaware General Corporation Law, or (iv) any action asserting a claim governed by the internal affairs doctrine as that doctrine exists under the law of the State of Delaware. Any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock will be deemed to have notice of, and consented to, the provisions of our Certificate of Incorporation described in the preceding sentence. This exclusive forum provision may limit a stockholder's ability to bring a claim in a judicial forum that the stockholder finds favorable for disputes with us or our directors, officers, or other employees, which may discourage such lawsuits against us and such persons. Alternatively, if a court were to find these provisions of our Certificate of Incorporation inapplicable to, or unenforceable in respect of, one or more of the specified types of actions or proceedings, we may incur additional costs associated with resolving such matters in other jurisdictions, which could adversely affect our business, financial condition, or results of operations.

This exclusive forum provision would not apply to suits brought to enforce a duty or liability created by the Securities Act of 1933, as amended (the "Securities Act") or the Securities Exchange Act of 1934 (the "Exchange Act"), except that it may apply to such suits if brought derivatively on our behalf. There is, however, uncertainty as to whether a court would enforce such provision in connection with suits to enforce a duty or liability created by the Securities Act or the Exchange Act if brought derivatively on our behalf, and our stockholders will not be deemed to have waived our compliance with the federal securities laws and the rules and regulations thereunder.

General Risk Factors

Business disruptions could seriously affect us.

Our business may be affected by disruptions including, but not limited to: threats to physical security of our facilities and employees; information technology attacks; natural disasters; political and social unrest; and pandemics or other public health crises. The costs related to these events may not be fully mitigated by insurance or other means. For example, subsequent to Aerojet Rocketdyne's 2020 year-end, a manufacturing building under construction experienced weather damage and we are currently evaluating the impact of such damage. Disruptions could affect our internal operations or services provided to customers, which could have a material adverse effect on our operating results, financial condition, and/or cash flows.

Tax changes could affect our effective tax rate and future profitability

Our effective tax rate for 2020 was 23.6% compared with 26.5% for 2019. Changes in applicable U.S. tax laws and regulations, or their interpretation and application, including the possibility of retroactive effect, could affect our tax expense, operating results, and/or cash flows.

Beginning in 2022, the Tax Cuts and Jobs Act of 2017 eliminates the option to deduct research and development expenditures currently and requires taxpayers to amortize such costs incurred in the U.S. over five years. While it is possible that Congress may modify, defer or repeal this provision before it takes effect, we have no assurance that the provision will be modified, deferred or repealed. If this provision is not modified, deferred or repealed, it may have an adverse effect on our cash taxes and as a result, our operating results, financial condition, and/or cash flows.

The level of returns on retirement benefit assets, changes in interest rates, changes in legislation, and other factors affect our financial results.

Our earnings are positively or negatively impacted by the amount of expense or income we record for our employee retirement benefit plans. We calculate the expense for the plans based on actuarial valuations. These valuations are based on assumptions that we make relating to financial market and other economic conditions. Changes in key economic indicators result in changes in the assumptions we use. The key assumptions used to estimate retirement benefits expense for the following year are the discount rate and expected long-term rate of return on assets. Our pension expense or income can also be affected by legislation and other government regulatory actions.

Our inability to protect our trade secrets, patents and proprietary rights could adversely affect our businesses' prospects and competitive positions.

If we are unable to obtain or maintain protections for proprietary technology and inventions through patents and other proprietary rights protections, we may not be able to prevent third parties from using our proprietary rights. In addition, we may incur significant expense in protecting our intellectual property.

We also rely on trade secrets, proprietary know-how and continuing technological innovation to remain competitive. We have taken measures to protect our trade secrets and know-how, including the use of confidentiality agreements with our employees, consultants and advisors. These agreements may be breached and remedies for a breach may not be sufficient to compensate us for damages incurred. Other parties may independently develop our know-how or otherwise obtain access to our technology.

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

None.

Item 2. ***Properties***

Significant operating, manufacturing, research, design, and/or marketing locations are set forth below.

Facilities

Corporate Headquarters

Aerojet Rocketdyne Holdings, Inc.
222 N. Pacific Coast Highway, Suite 500
El Segundo, California 90245

Aerospace and Defense

Operating/Design/Manufacturing Facilities:	Marketing/Sales Offices:
Camden, Arkansas (owned and leased); Carlstadt, New Jersey*; Chatsworth, California (owned and leased); Hancock County, Mississippi*; Huntsville, Alabama*; Jonesborough, Tennessee**; Orange, Virginia; Orlando, Florida*; Redmond, Washington; West Palm Beach, Florida*	Arlington, Virginia*

Real Estate

Rancho Cordova, California

* Indicates a leased property.

** Owned and operated by Aerojet Ordnance Tennessee, Inc., a 100% owned subsidiary of Aerojet Rocketdyne.

We believe each of the facilities is suitable and adequate for the business conducted at that facility taking into account current and planned future needs.

Item 3. ***Legal Proceedings***

See Note 8(a) in the consolidated financial statements in Item 8 of this Report for information relating to our legal proceedings.

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

None.

PART II

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

As of February 12, 2021, there were 5,349 holders of record of our common stock. Our common stock is listed on the New York Stock Exchange under the trading symbol "AJRD." On February 12, 2021, the last reported sale price of our common stock on the New York Stock Exchange was $52.36 per share.

On December 19, 2020, our Board of Directors declared the one-time Pre-Closing Dividend in cash of $5.00 per share (including shares underlying the 2¼% Notes participating on an as-converted basis).

On March 13, 2020, we announced that our Board of Directors authorized and approved a new share repurchase program ("Repurchase Program") allowing us to repurchase our outstanding common stock with an aggregate market value of up to $100 million, from time to time, over a period of up to 18 months. The Repurchase Program may be executed through various methods, including open market purchases or privately negotiated transactions. The table below provides information about the Repurchase Program activity during the three months ended December 31, 2020.

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Maximum Number (or Approximate Dollar Value) of Shares that May Yet Be Purchased under the Plans or Programs (1)
October 1, 2020 through October 31, 2020	969,871	$ 40.57	969,871	$ 48.3
November 1, 2020 through November 30, 2020	—	$ —	—	—
December 1, 2020 through December 31, 2020	—	$ —	—	—
Total	969,871	$ 40.57	969,871	$ 48.3

(1) In millions

The table below provides information about shares surrendered to the Company during the three months ended December 31, 2020, to pay employee withholding taxes due upon the vesting of restricted stock.

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Maximum Number (or Approximate Dollar Value) of Shares that May Yet Be Purchased under the Plans or Programs
October 1, 2020 through October 31, 2020	923	$ 39.82	—	—
November 1, 2020 through November 30, 2020	—	$ —	—	—
December 1, 2020 through December 31, 2020	119,884	$ 52.47	—	—
Total	120,807	$ 52.37	—	—

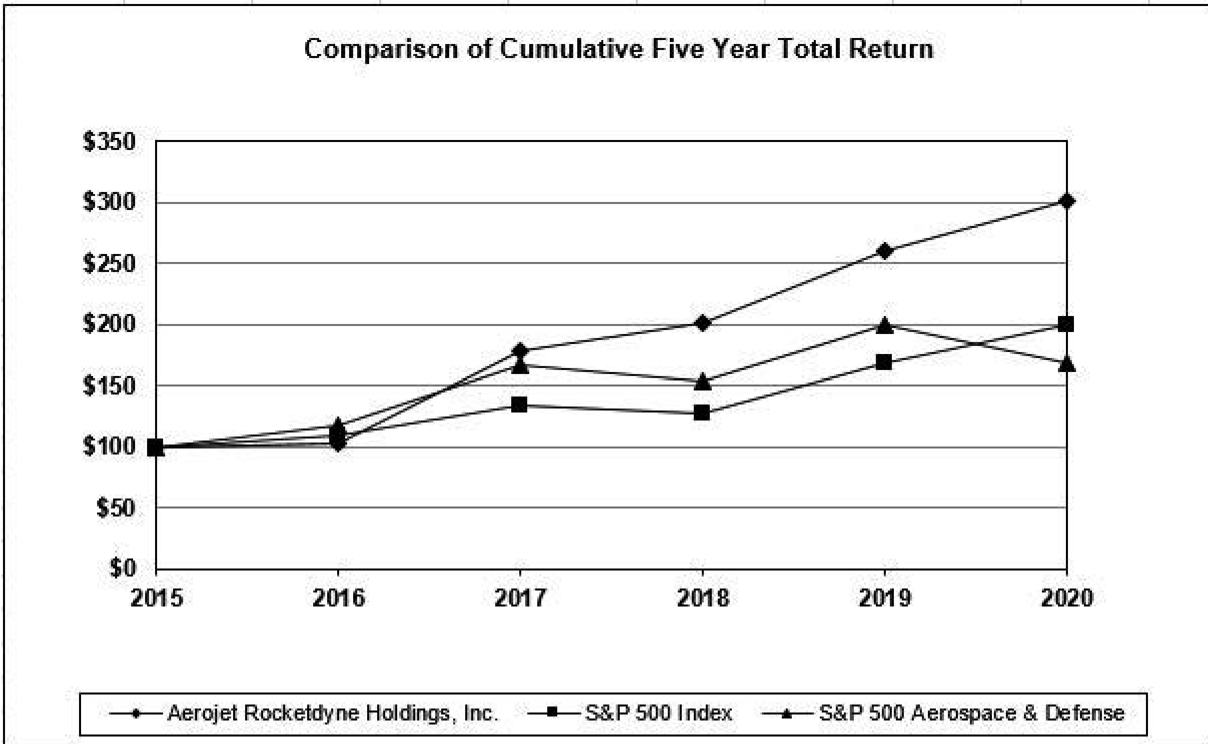
Information concerning long-term debt appears in Part II, Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations under the caption "Liquidity and Capital Resources" and in Part II, Item 8. Financial Statements and Supplementary Data at Note 6 in the consolidated financial statements.

Information concerning securities authorized for issuance under our equity compensation plans appears in Part III, Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters under the caption "Equity Compensation Plan Information."

Stock Performance Graph

The following graph compares the cumulative total stockholder returns, calculated on a dividend reinvested basis, on $100 invested in our common stock in November 2015 with the cumulative total return of (i) the Standard & Poor's 500 Composite Stock Price Index ("S&P 500 Index"), and (ii) the Standard & Poor's 500 Aerospace & Defense Index. The stock price performance shown on the graph is not necessarily indicative of future performance.

Comparison of Cumulative Total Stockholder Return Among Aerojet Rocketdyne, S&P 500 Index, and the S&P 500 Aerospace & Defense Index, November 2015 through December 2020



Company/Index	Base Year 2015	Year Ended December 31, 2016	2017	2018	2019	2020
Aerojet Rocketdyne Holdings, Inc.	$ 100.00	$ 102.34	$ 177.88	$ 200.86	$ 260.32	$ 301.31
S&P 500 Index	100.00	110.19	134.25	128.37	168.78	199.84
S&P 500 Aerospace & Defense	100.00	117.97	166.78	153.32	199.82	167.72

Item 6. *Selected Financial Data*

The following selected financial data is qualified by reference to and should be read in conjunction with the consolidated financial statements, including the notes thereto in Item 8. Financial Statements and Supplementary Data and Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

	Year Ended December 31,				
	2020	2019	2018	2017	2016
	(In millions, except per share amounts)				
Net sales	$ 2,072.7	$ 1,981.5	$ 1,895.9	$ 1,877.2	$ 1,761.3
Net income (loss)	137.7	141.0	137.3	(9.2)	18.0
Basic earnings (loss) per share of common stock ("EPS")	1.76	1.79	1.80	(0.13)	0.27
Diluted EPS	1.66	1.69	1.75	(0.13)	0.27
Cash dividends declared per share	5.00	—	—	—	—
Supplemental statement of operations information:					
Net income (loss)	$ 137.7	$ 141.0	$ 137.3	$ (9.2)	$ 18.0
Interest expense	30.1	35.7	34.4	30.9	32.5
Interest income	(6.3)	(15.5)	(10.0)	(3.5)	(0.6)
Income tax provision	42.5	50.9	51.3	96.1	11.2
Depreciation and amortization	65.3	74.5	72.3	72.6	64.9
GAAP retirement benefits expense	36.6	26.1	57.6	73.2	68.9
CAS recoverable retirement benefits expense	(43.8)	(41.3)	(38.2)	(36.2)	(29.5)
Unusual items	8.1	0.3	0.2	(1.0)	34.5
Adjusted EBITDAP (Non-GAAP measure)*	$ 270.2	$ 271.7	$ 304.9	$ 222.9	$ 199.9
Net income (loss) as percentage of net sales	6.6 %	7.1 %	7.2 %	(0.5)%	1.0 %
Adjusted EBITDAP (Non-GAAP measure) as a percentage of net sales	13.0 %	13.7 %	16.1 %	11.9 %	11.3 %
Stock-based compensation expense	$ 31.4	$ 27.3	$ 20.5	$ 22.0	$ 12.9
Environmental remediation provision adjustments	4.3	2.1	(36.9)	8.2	18.3
Cash flow information:					
Cash flow provided by operating activities	$ 363.8	$ 261.2	$ 252.7	$ 212.8	$ 158.7
Capital Expenditures	(54.6)	(42.9)	(43.2)	(29.4)	(47.6)
Free Cash Flow*	$ 309.2	$ 218.3	$ 209.5	$ 183.4	$ 111.1
Balance Sheet information:					
Total assets	$ 2,899.9	$ 2,707.8	$ 2,490.1	$ 2,258.7	$ 2,249.5
Total debt principal	654.1	675.8	672.8	670.9	725.6

* We provide Non-GAAP measures as a supplement to financial results presented in accordance with GAAP. A reconciliation of the Non-GAAP measures to the most directly comparable GAAP measures is presented later in the Management's Discussion and Analysis under the heading "Use of Non-GAAP Financial Measures."

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

The following discussion should be read in conjunction with the other sections of this Report, including the consolidated financial statements and notes thereto appearing in Item 8 of this Report, the risk factors appearing in Item 1A of this Report, and the disclaimer regarding forward-looking statements appearing at the beginning of Item 1 of this Report. We have elected to omit discussion of the earliest of the three years covered by the consolidated financial statements presented. Refer to Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations located in our Form 10-K for the fiscal year ended December 31, 2019, filed with the SEC on February 19, 2020, for the discussion of the year ended December 31, 2018, the earliest of the three fiscal years presented.

Overview

On December 20, 2020, the Company entered into the Merger Agreement with Lockheed Martin and the Merger Sub, pursuant to which, subject to the terms and conditions thereof, Merger Sub will merge with and into the Company with the Company being the surviving corporation and a wholly-owned subsidiary of Lockheed Martin.

Subject to the terms and conditions set forth in the Merger Agreement, each share of common stock outstanding as of immediately prior to the effective time of the Merger will be automatically converted into the right to receive cash in an amount equal to $56.00 per share, without interest, less, to the extent paid or payable as outlined below, the amount per share of the Pre-Closing Dividend (defined below).

On December 19, 2020, our Board of Directors declared the one-time Pre-Closing Dividend in cash of $5.00 per share (including shares underlying the 2¼% Notes participating on an as-converted basis). The Pre-Closing Dividend is payable on March 24, 2021, to the holders of our shares and 2¼% Notes as of the close of business on March 10, 2021. The $56.00 per share price under the Merger Agreement is expected to be reduced to $51.00 after the payment of the Pre-Closing Dividend to our stockholders and holders of our 2¼% Notes participating on an as-converted basis (or, in the unlikely event that closing occurs after March 10, 2021, but before March 24, 2021, to the extent the Pre-Closing Dividend is payable after the closing).

Closing of the Merger is anticipated to occur in the second half of 2021, subject to various customary conditions, including our stockholder approval and regulatory approval under the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended.

A summary of the significant financial highlights for the years ended December 31, 2020 and 2019, which management uses to evaluate our operating performance and financial condition, is presented below.

	Year Ended December 31,	
	2020	2019
	(In millions, except percentage and per share amounts)	
Net sales	$ 2,072.7	$ 1,981.5
Net income	137.7	141.0
Net income as a percentage of net sales	6.6 %	7.1 %
Adjusted Net Income (Non-GAAP measure*)	138.4	130.1
Adjusted Net Income (Non-GAAP measure*) as a percentage of net sales	6.7 %	6.6 %
Earnings Per Share ("EPS") - Diluted	1.66	1.69
Adjusted EPS (Non-GAAP measure*)	1.67	1.56
Adjusted EBITDAP (Non-GAAP measure*)	270.2	271.7
Adjusted EBITDAP (Non-GAAP measure*) as a percentage of net sales	13.0 %	13.7 %
Cash provided by operating activities	363.8	261.2
Free cash flow (Non-GAAP measure*)	309.2	218.3

* We provide Non-GAAP measures as a supplement to financial results presented in accordance with GAAP. A reconciliation of the Non-GAAP measures to the most directly comparable GAAP measures is presented later in the Management's Discussion and Analysis under the heading "Use of Non-GAAP Financial Measures."

Our business outlook is affected by both increasing complexity in the global security environment and continuing worldwide economic pressures, including those resulting from the COVID-19 pandemic. A significant component of our strategy in this environment is to focus on protecting our employees' health and safety, delivering excellent performance to our customers, driving improvements and efficiencies across our operations, and creating value through the enhancement and expansion of our business.

Some of the significant challenges we face are as follows: uncertainty associated with the COVID-19 pandemic and the actions taken by governments, companies, and individuals in response, including the distribution of a vaccine, dependence upon U.S. government programs and contracts, future reductions or changes in U.S. government spending in our markets, environmental matters, capital structure, underfunded pension plan, and cyber security.

COVID-19

During 2020, there was minimal adverse impact to our financial results and operations as a result of the COVID-19 outbreak. The safety and welfare of our employees remains our top priority, and throughout the year, we have continued to operate with our established safety protocols, which include selected and site-specific work and travel restrictions, in addition to other measures intended to reduce the spread of COVID-19. We have also continued to evaluate new opportunities to protect our employees. Although we have not experienced significant absenteeism or supply chain disruption, the extent to which the COVID-19 pandemic impacts our future financial results depends on future developments which are highly uncertain and cannot be predicted, including new information which may emerge concerning the severity of the pandemic and the actions being taken to contain and treat it, including the distribution of a vaccine, and other indirect effects that may come as a result of actions taken by governments, companies, and individuals in response to the pandemic and its economic impact.

As a defense industrial-base U.S. government contractor, we are considered an essential business by the U.S. and state governments and we continue to operate as such during the COVID-19 pandemic. We are taking a variety of measures to maintain the availability and functionality of our critical infrastructure, to promote the safety and security of our employees and to support the communities in which we operate. In making decisions regarding our operations, we take into account public and private sector policies and initiatives to reduce the transmission of COVID-19, such as the adoption of mask-wearing protocols, enhanced cleaning protocols and health monitoring, as well as the imposition of travel restrictions, the promotion of social distancing, and the adoption of work-from-home requirements for employees where practicable. All of these policies and initiatives could impact our operations. Due to the evolving nature of the COVID-19 pandemic, corresponding U.S. government policies and the uncertainty relating to the rollout and timing of vaccines, we are not able at this time to estimate its full impact on our financial results and operations.

Major Customers

The principal end user customers of our products and technology are primarily agencies of the U.S. government. Since a majority of our sales are, directly or indirectly, to the U.S. government, funding for the purchase of our products and services generally follows trends in U.S. aerospace and defense spending. However, individual U.S. government agencies, which include the military services, NASA, MDA, and the prime contractors that serve these agencies, exercise independent purchasing power within "budget top-line" limits. Therefore, sales to the U.S. government are not regarded as sales to one customer, but rather each contracting agency is viewed as a separate customer.

The following table summarizes end user net sales to the U.S. government and its agencies, including net sales to significant customers disclosed below:

Year Ended December 31,	Percentage of Net Sales
2020	96 %
2019	96

The following table summarizes net sales by principal end user in 2020:

NASA	25 %
MDA	23
U.S. Army	19
U.S. Air Force	12
U.S. Navy	10
Other U.S. government	7
Total U.S. government customers	96
Other customers	4
Total	100 %

The following table summarizes the percentages of net sales for significant programs, all of which are included in the U.S. government sales and are comprised of multiple contracts:

	Year Ended December 31,	
	2020	2019
RS-25 program	18 %	17 %
Standard Missile program	13	13
THAAD program	11	10
PAC-3 program	10	10

The following table summarizes customers that represented more than 10% of net sales, each of which involves sales of several product lines and programs:

	Year Ended December 31,	
	2020	2019
Lockheed Martin	34 %	33 %
NASA	21	21
Raytheon	17	17
ULA	*	10

* Less than 10%

Industry Update

Information concerning our industry appears in Part I, Item 1. Business under the caption "Industry Overview."

Environmental Matters

Our current and former business operations are subject to, and affected by, federal, state, and local environmental laws and regulations relating to the discharge, treatment, storage, disposal, investigation, and remediation of certain materials, substances, and wastes. See Notes 8(b) and 8(c) in the consolidated financial statements in Item 8 of this Report and "Environmental Matters" below for summary of our environmental reserve activity.

Capital Structure

We have a substantial amount of debt for which we are required to make interest and principal payments. Interest on long-term financing is not a recoverable cost under our U.S. government contracts. As of December 31, 2020, we had $624.3 million of debt outstanding.

Pension Plan

As of the last measurement date at December 31, 2020, the pension assets, projected benefit obligations, and unfunded pension obligation were $957.0 million, $1,381.5 million, and $424.5 million, respectively. We estimate that 82% of our unfunded pension obligation as of December 31, 2020, is related to our U.S. government contracting business, Aerojet Rocketdyne.

We expect to make cash contributions of approximately $94 million to our tax-qualified defined benefit pension plan in 2021. We generally are able to recover contributions related to our tax-qualified defined benefit pension plan as allowable costs on our U.S. government contracts, but there are differences between when we contribute to our tax-qualified defined benefit pension plan under pension funding rules and when it is recoverable under CAS. Accordingly, in 2021, we expect to recover approximately $43 million of our tax-qualified defined benefit pension plan contributions as allowable costs on our U.S. government contracts.

The COVID-19 pandemic and resulting global disruptions have continued to cause significant economic uncertainty and volatility in financial markets which could adversely impact the funded status of our tax-qualified defined benefit pension plan. The funded status of our pension plan is impacted by the investment experience of the plan assets, by any changes in U.S. law, and by changes in the statutory interest rates used by the tax-qualified pension plan in the U.S. to calculate funding requirements. Accordingly, if the performance of our plan assets does not meet our assumptions, if there are changes to the Internal Revenue Service regulations or other applicable law or if other actuarial assumptions are modified, our future contributions to our underfunded pension plan could be higher than we expect.

Cyber Security

We routinely defend against various cyber and other security threats against our defenses to protect the confidentiality, integrity and availability of our information technology infrastructure, supply chain, business or customer information and other threats. We are also subject to similar security threats at customer sites that we operate and manage as a contractual requirement.

The threats we face range from attacks common to most industries to more advanced and persistent, highly organized adversaries, insider threats and other threat vectors targeting us and other defense and aerospace companies; because we protect national security information. In addition, cyber threats are evolving, growing in their frequency and include, but are not limited to, malicious software, destructive malware, attempts to gain unauthorized access to data, disruption or denial of service attacks, and other electronic security breaches that could lead to disruptions in mission critical systems, unauthorized release of confidential, personal or otherwise protected information (ours or that of our employees, customers or partners), and corruption of data, networks or systems. We also could be impacted by cyber threats or other disruptions or vulnerabilities found in products we use or in our partners' or customers' systems that are used in connection with our business.

In response to the COVID-19 pandemic, where practicable, we have required employees to work remotely, and expanded our information technology and communication support to enhance their connectivity. We continue to assess our information technology systems and are engaged in cooperative efforts with our customers, suppliers, and subcontractors to seek to minimize the impact of cyber threats, other security threats or business disruptions.

Results of Operations:

Net Sales:

	Year Ended December 31, 2020	2019	Change
		(In millions)	
Net sales:	$ 2,072.7	$ 1,981.5	$ 91.2

Primary reason for change. The increase in net sales was primarily driven by the RS-25, MRBM, and GMLRS programs partially offset by a decline on the Commercial Crew Development program and the cancellation in 2019 of the Redesigned Exoatmospheric Kill Vehicle ("RKV") program.

Cost of Sales (exclusive of items shown separately below):

	Year Ended December 31, 2020	2019	Change
	(In millions, except percentage amounts)		
Cost of sales (exclusive of items shown separately below)	$ 1,701.3	$ 1,613.6	$ 87.7
Percentage of net sales	82.1 %	81.4 %	

Primary reason for change. The increase in cost of sales as a percentage of net sales was primarily driven by the following: (i) cost growth on a portion of the Standard Missile program in 2020; (ii) cost growth and performance issues in 2020 on the Commercial Crew Development program; and (iii) the reserve release upon the final AJ-60 solid rocket motor delivery in 2019. These factors were partially offset by improved performance and risk retirements on the RS-68, MRBM, and THAAD programs.

Selling, General and Administrative Expense ("SG&A"):

	Year Ended December 31, 2020	2019	Change
	(In millions, except percentage amounts)		
Components of SG&A:			
SG&A excluding stock-based compensation	$ 24.7	$ 26.3	$ (1.6)
Stock-based compensation	31.4	27.3	4.1
SG&A	$ 56.1	$ 53.6	$ 2.5
Percentage of net sales	2.7 %	2.7 %	
Percentage of net sales excluding stock-based compensation	1.2 %	1.3 %	

Primary reason for change. The increase in SG&A expense was primarily driven by stock-based compensation that was partially offset by a decrease in business travel-related expenses due to our restrictions on travel in response to COVID-19. For detailed information about stock-based compensation refer to Note 9(e) in the consolidated financial statements in Item 8 of this Report.

Depreciation and Amortization:

	Year Ended December 31, 2020	2019	Change
		(In millions)	
Components of depreciation and amortization:			
Depreciation	$ 49.2	$ 58.1	$ (8.9)
Amortization	13.4	13.6	(0.2)
Accretion	2.7	2.8	(0.1)
Depreciation and amortization	$ 65.3	$ 74.5	$ (9.2)

Primary reason for change. The decrease in depreciation and amortization expense was primarily due to the completion of depreciation expense associated with the enterprise resource planning system which was placed into service in June 2013.

Other Expense, Net:

	Year Ended December 31,		
	2020	2019	Change
	(In millions)		
Other expense, net:	$ 9.4	$ 1.6	$ 7.8

Primary reason for change. The increase in other expense, net was primarily due to an increase of $7.8 million in unusual items primarily related to Merger costs. For detailed information about unusual expenses refer to Note 13 in the consolidated financial statements in Item 8 of this Report.

Interest Income:

	Year Ended December 31,		
	2020	2019	Change
	(In millions)		
Interest income:	$ 6.3	$ 15.5	$ (9.2)

Primary reason for change. The decrease in interest income was primarily due to lower market rates partially offset by higher average cash balances.

	Year Ended December 31,		
	2020	2019	Change
	(In millions)		
Components of interest expense:			
Contractual interest and other	$ 20.2	$ 26.3	$ (6.1)
Amortization of debt discount and deferred financing costs	9.9	9.4	0.5
Interest expense	$ 30.1	$ 35.7	$ (5.6)

Primary reason for change. The decrease in interest expense was primarily due to lower variable interest rates and average obligations on our Senior Credit Facility.

Income Tax Provision:

	Year Ended December 31,	
	2020	2019
	(In millions)	
Income tax provision	$ 42.5	$ 50.9

In 2020, our effective tax rate was 23.6%. Our effective tax rate differed from the 21% statutory federal income tax rate primarily due to state income taxes, uncertain tax positions, and certain expenditures which are permanently not deductible for tax purposes, offset by R&D credits and excess tax benefits related to our stock-based compensation.

During the fourth quarter of 2020, the IRS released final regulations regarding the timing of income and inclusion under an accrual method of accounting. In accordance with the Applicable Financial Statement cost offset method described within the regulations, we recorded a $41.1 million reduction to our uncertain tax positions.

As of December 31, 2020, the liability for uncertain income tax positions was $14.6 million. Due to the uncertainty regarding the timing of potential future cash flows associated with these liabilities, we are unable to make a reasonably reliable estimate of the amount and period in which these liabilities might be paid.

In 2019, our effective tax rate was 26.5%. Our effective tax rate is higher than the 21% statutory federal income tax rate primarily due to state income taxes and uncertain tax positions, offset by R&D credits and excess tax benefits related to our stock-based compensation.

Retirement Benefits Expense:

	Year Ended December 31, 2020	2019	Change
		(In millions)	
Components of retirement benefits expense:			
Interest cost on benefit obligation	$ 43.3	$ 53.9	$ (10.6)
Assumed return on assets	(60.5)	(64.8)	4.3
Amortization of prior service credits	0.1	(0.1)	0.2
Amortization of net losses	53.7	37.1	16.6
Retirement benefits expense	$ 36.6	$ 26.1	$ 10.5

Primary reason for change. The increase in retirement benefits expense was primarily due to higher actuarial losses in the current period for the most part as a result of a decrease in the discount rate used to calculate the benefit obligation at December 31, 2019, partially offset by lower interest costs on the benefit obligation.

We estimate that our retirement benefits expense will be approximately $34 million in 2021. Additionally, we estimate the CAS recoverable amounts related to the Company's retirement benefits plans to be approximately $45 million in 2021. See "Critical Accounting Policies - Retirement Benefit Plans" for more information about our accounting practices with respect to retirement benefits.

Operating Segment Information:

We evaluate our operating segments based on several factors, of which the primary financial measure is segment performance. Segment performance represents net sales less applicable costs, expenses and provisions for unusual items relating to the segment. Excluded from segment performance are: corporate income and expenses, interest expense, interest income, income taxes, and unusual items not related to the segment. We believe that segment performance provides information useful to investors in understanding our operational performance.

Aerospace and Defense Segment

	Year Ended December 31, 2020	2019	Change
	(In millions, except percentage amounts)		
Net sales	$ 2,069.4	$ 1,974.0	$ 95.4
Segment performance	275.6	269.3	6.3
Segment margin	13.3 %	13.6 %	

Primary reason for change. The increase in net sales was primarily driven by the RS-25, MRBM, and GMLRS programs partially offset by a decline on the Commercial Crew Development program and the cancellation in 2019 of the RKV program.

The decrease in segment margin was primarily driven by the following: (i) cost growth on a portion of the Standard Missile program in 2020; (ii) cost growth and performance issues in 2020 on the Commercial Crew Development program; (iii) the reserve release upon the final AJ-60 solid rocket motor delivery in 2019; and (iv) higher retirement benefit expense. These factors were partially offset by (i) improved performance and risk retirements on the RS-68, MRBM, and THAAD programs and (ii) lower depreciation expense.

During 2020, we had $45.1 million of net favorable changes in contract estimates on operating results before income taxes compared with net favorable changes of $38.4 million during 2019.

Real Estate Segment

	Year Ended December 31, 2020	2019	Change
		(In millions)	
Net sales	$ 3.3	$ 7.5	$ (4.2)
Segment performance	(1.8)	2.1	(3.9)

Primary reason for change. Net sales consist primarily of rental property operations. The decrease in net sales and segment performance were driven primarily by delays in new tenant starts as a result of the COVID-19 pandemic.

Backlog:

As of December 31, 2020, our total remaining performance obligations, also referred to as backlog, totaled $6.7 billion, compared with $5.4 billion as of December 31, 2019. The increase in backlog was due to a $1.8 billion contract modification for the production of an additional 18 RS-25 engines to support future deep space exploration missions. We expect to recognize approximately 32%, or $2.2 billion, of the remaining performance obligations as sales over the next twelve months, an additional

24% the following twelve months, and 44% thereafter. The following table summarizes backlog:

	As of December 31,	
	2020	2019
	(In billions)	
Funded backlog	$ 3.0	$ 2.1
Unfunded backlog	3.7	3.3
Total backlog	$ 6.7	$ 5.4

Total backlog includes both funded backlog (unfilled orders for which funding is authorized, appropriated and contractually obligated by the customer) and unfunded backlog (firm orders for which funding has not been appropriated). Indefinite delivery and quantity contracts and unexercised options are not reported in total backlog. Backlog is subject to funding delays or program restructurings/cancellations which are beyond our control.

Use of Non-GAAP Financial Measures:

Adjusted EBITDAP, Adjusted Net Income, and Adjusted EPS

We provide the Non-GAAP financial measures of our performance called Adjusted EBITDAP, Adjusted Net Income, and Adjusted EPS. We use these metrics to measure our operating and total Company performance. We believe that for management and investors to effectively compare core performance from period to period, the metrics should exclude items that are not indicative of, or are unrelated to, results from our ongoing business operations such as retirement benefits (pension and postretirement benefits), significant non-cash expenses, the impacts of financing decisions on earnings, and items incurred outside the ordinary, ongoing and customary course of our business. Accordingly, we define Adjusted EBITDAP as GAAP net income adjusted to exclude interest expense, interest income, income taxes, depreciation and amortization, retirement benefits net of amounts that are recoverable under our U.S. government contracts, and unusual items which we do not believe are reflective of such ordinary, ongoing and customary activities. Adjusted Net Income and Adjusted EPS exclude retirement benefits net of amounts that are recoverable under our U.S. government contracts and unusual items which we do not believe are reflective of such ordinary, ongoing and customary activities. Adjusted Net Income and Adjusted EPS do not represent, and should not be considered an alternative to, net income or diluted EPS as determined in accordance with GAAP.

	Year Ended December 31,	
	2020	2019
	(In millions, except per share and percentage amounts)	
Net income	$ 137.7	$ 141.0
Interest expense	30.1	35.7
Interest income	(6.3)	(15.5)
Income tax provision	42.5	50.9
Depreciation and amortization	65.3	74.5
GAAP retirement benefits expense	36.6	26.1
CAS recoverable retirement benefits expense	(43.8)	(41.3)
Unusual items	8.1	0.3
Adjusted EBITDAP	$ 270.2	$ 271.7
Net income as a percentage of net sales	6.6 %	7.1 %
Adjusted EBITDAP as a percentage of net sales	13.0 %	13.7 %
Net income	$ 137.7	$ 141.0
GAAP retirement benefits expense	36.6	26.1
CAS recoverable retirement benefits expense	(43.8)	(41.3)
Unusual items	8.1	0.3
Income tax impact of adjustments (1)	(0.2)	4.0
Adjusted Net Income	$ 138.4	$ 130.1
Diluted EPS	$ 1.66	$ 1.69
Adjustments	0.01	(0.13)
Adjusted EPS	$ 1.67	$ 1.56
Diluted weighted average shares, as reported and as adjusted	81.9	81.7

(1) The income tax impact is calculated using the federal and state statutory rates in the corresponding year.

Free Cash Flow

We also provide the Non-GAAP financial measure of Free Cash Flow. Free Cash Flow is defined as cash flow from operating activities less capital expenditures. Free Cash Flow should not be considered in isolation as a measure of residual cash flow available for discretionary purposes or as an alternative to cash flows from operations presented in accordance with GAAP. We use Free Cash Flow, both in presenting our results to stakeholders and the investment community, and in our internal evaluation and management of the business. Management believes that this financial measure is useful to investors because it provides supplemental information to assist them in viewing the business using the same tools that management uses to evaluate progress in achieving our goals. The following table summarizes Free Cash Flow:

	Year Ended December 31,	
	2020	2019
	(In millions)	
Net cash provided by operating activities	$ 363.8	$ 261.2
Capital expenditures	(54.6)	(42.9)
Free Cash Flow	$ 309.2	$ 218.3

Because our method for calculating these Non-GAAP measures may differ from other companies' methods, the Non-GAAP measures presented above may not be comparable to similarly titled measures reported by other companies. These measures are not recognized in accordance with GAAP, and we do not intend for this information to be considered in isolation or as a substitute for GAAP measures.

Environmental Matters:

Our policy is to conduct our businesses with due regard for the preservation and protection of the environment. We devote a significant amount of resources and management attention to environmental matters and actively manage our ongoing processes to comply with environmental laws and regulations. We are involved in the remediation of environmental conditions that resulted from generally accepted manufacturing and disposal practices at certain plants in the 1950s and 1960s. In addition, we have been designated a PRP with other companies at third party sites undergoing investigation and remediation.

Estimating environmental remediation costs is difficult due to the significant uncertainties inherent in these activities, including the extent of remediation required, changing governmental regulations and legal standards regarding liability, evolving technologies and the long period of time over which most remediation efforts take place. We:

- accrue for costs associated with the remediation of environmental pollution when it becomes probable that a liability has been incurred and when our proportionate share of the costs can be reasonably estimated; and
- record related estimated recoveries when such recoveries are deemed probable.

In addition to the costs associated with environmental remediation discussed above, we incur expenditures for recurring costs associated with managing hazardous substances or pollutants in ongoing operations which totaled $6.0 million and $5.3 million in 2020 and 2019, respectively.

The following table summarizes our recoverable amounts, environmental reserves, and range of liability, as of December 31, 2020:

	Recoverable Amount (1)	Reserve	Estimated Range of Liability
		(In millions)	
Aerojet Rocketdyne - Sacramento	$ 183.4	$ 208.4	$208.4 - $331.4
Aerojet Rocketdyne - Baldwin Park Operable Unit ("BPOU")	67.0	76.2	76.2 - 91.9
Other Aerojet Rocketdyne sites	10.6	10.6	10.6 - 21.1
Other sites	0.8	5.4	5.4 - 6.7
Total	$ 261.8	$ 300.6	$300.6 - $451.1

(1) Excludes the receivable from Northrop of $46.5 million as of December 31, 2020, related to environmental costs already paid (and therefore not reserved) by us in prior years and reimbursable under our agreement with Northrop.

Environmental Reserves

We review on a quarterly basis estimated future remediation costs and have an established practice of estimating environmental remediation costs over a fifteen year period, except for those environmental remediation costs with a specific contractual term. Environmental liabilities at the BPOU site are currently estimated through the term of the project agreement, which expires in May 2027. As the period for which estimated environmental remediation costs lengthens, the reliability of such estimates decreases. These estimates consider the investigative work and analysis of engineers, outside environmental consultants, and the advice of legal staff regarding the status and anticipated results of various administrative and legal proceedings. In most cases, only a range of reasonably possible costs can be estimated. In establishing our reserves, the most probable estimate is used when determinable; otherwise, the minimum amount is used when no single amount in the range is more probable. Accordingly, such estimates can change as we periodically evaluate and revise these estimates as new information becomes available. We cannot predict whether new information gained as projects progress will affect the estimated liability accrued. The timing of payment for estimated future environmental costs is influenced by a number of factors, such as the regulatory approval process and the time required designing, constructing, and implementing the remedy.

The following table summarizes our environmental reserve activity:

	Year Ended December 31,	
	2020	2019
	(In millions)	
Balance at beginning of year	$ 309.2	$ 327.9
Additions	32.4	16.7
Expenditures	(41.0)	(35.4)
Balance at end of year	$ 300.6	$ 309.2

The $32.4 million of environmental reserve additions in 2020 was primarily due to the following items: (i) $13.7 million of remediation related to operable treatment units; (ii) $10.2 million of additional operations and maintenance for treatment facilities; (iii) $3.2 million of sampling analysis costs; and (iv) $5.3 million related to other environmental clean-up matters.

The $16.7 million of environmental reserve additions in 2019 was primarily due to the following items: (i) $10.0 million of additional operations and maintenance for treatment facilities; (ii) $4.1 million of remediation related to operable treatment units; (iii) $1.9 million of sampling analysis costs; and (iv) $0.7 million related to other environmental clean-up matters.

The effect of the final resolution of environmental matters and our obligations for environmental remediation and compliance cannot be accurately predicted due to the uncertainty concerning both the amount and timing of future expenditures and due to regulatory or technological changes. We continue our efforts to mitigate past and future costs through pursuit of claims for recoveries from our insurance carriers and other PRPs and continued investigation of new and more cost effective remediation alternatives and associated technologies.

Estimated Recoveries

Environmental remediation costs are primarily incurred by our Aerospace and Defense segment, and certain of these costs are recoverable from our contracts with the U.S. government. We currently estimate approximately 12% of our future Aerospace and Defense segment environmental remediation costs will not likely be reimbursable and are expensed.

Allowable environmental remediation costs are charged to our contracts as the costs are incurred. Because these costs are recovered through forward-pricing arrangements, the ability of Aerojet Rocketdyne to continue recovering these costs from the U.S. government depends on Aerojet Rocketdyne’s sustained business volume from U.S. government contracts and programs.

While we are currently seeking an arrangement with the U.S. government to recover environmental expenditures in excess of the reimbursement ceiling identified in the Global Settlement, there can be no assurances that such a recovery will be obtained, or if not obtained, that such unreimbursed environmental expenditures will not have a materially adverse effect on our operating results, financial condition, and/or cash flows.

The following table summarizes the activity in the current and non-current recoverable amounts from the U.S. government and Northrop:

	Year Ended December 31,	
	2020	2019
	(In millions)	
Balance at beginning of year	$ 322.0	$ 344.1
Additions	28.3	14.5
Reimbursements	(36.0)	(30.6)
Other adjustments	(6.0)	(6.0)
Balance at end of year	$ 308.3	$ 322.0

The activity for recoveries is commensurate with the activity associated with the environmental reserve activity.

Environmental reserves and recoveries impact on the consolidated statements of operations

The expenses associated with adjustments to the environmental reserves are recorded as a component of other expense (income), net in the consolidated statements of operations. The following table summarizes the impact of environmental reserves and recoveries to the consolidated statements of operations:

	Year Ended December 31,	
	2020	2019
	(In millions)	
Expense to consolidated statement of operations	$ 4.3	$ 2.1

Recently Adopted Accounting Pronouncements:

See Note 1 in the consolidated financial statements in Item 8 of this Report for information relating to our discussion of the effects of recent accounting pronouncements.

Liquidity and Capital Resources:

Net Cash Provided By (Used In) Operating, Investing, and Financing Activities

The following table summarizes the change in cash, cash equivalents and restricted cash:

	Year Ended December 31,	
	2020	2019
	(In millions)	
Net Cash Provided by Operating Activities	$ 363.8	$ 261.2
Net Cash Used in Investing Activities	(61.0)	(41.8)
Net Cash Used in Financing Activities	(85.9)	(24.1)
Net Increase in Cash, Cash Equivalents and Restricted Cash	$ 216.9	$ 195.3

Net Cash Provided by Operating Activities

The $102.6 million increase in cash provided by operating activities in 2020 compared with 2019 was primarily due to the following: (i) improved cash flow from contracts due to the timing of customer advances; and (ii) a decrease in income (net of refunds) and payroll tax payments.

Net Cash Used in Investing Activities

During 2020 and 2019, we had capital expenditures of $54.6 million and $42.9 million, respectively. The increase in capital expenditures in 2020 was primarily due to capacity expansion to support the RS-25 program.

During 2020, we made a net investment of $6.7 million in marketable securities.

Net Cash Used in Financing Activities

During 2020 and 2019, we had debt cash payments of $21.7 million and $20.8 million, respectively. See a summary of the 2020 debt principal activity below. During 2020, we repurchased 1.3 million of our common shares at a cost of $51.7 million Additionally, we had net cash usage of $12.5 million in 2020 associated with our equity plans compared with net cash usage of $3.3 million in 2019.

Debt Activity

The following table summarizes our debt principal activity:

	December 31, 2019	Cash Payments	December 31, 2020
		(In millions)	
Term loan	$ 328.1	$ (19.6)	$ 308.5
2 1/4% Notes	300.0	—	300.0
Finance leases	47.7	(2.1)	45.6
Total Debt Activity	$ 675.8	$ (21.7)	$ 654.1

Outlook

Short-term liquidity requirements consist primarily of recurring operating expenses, including but not limited to costs related to our capital and environmental expenditures, company-funded R&D expenditures, debt service requirements, and retirement benefit plans. We believe that our existing cash and cash equivalents and availability under the Senior Credit Facility coupled with cash generated from our future operations will provide sufficient funds to meet our operating plan for the next twelve months. The operating plan for this period provides for full operation of our businesses, including interest and debt payments. As of December 31, 2020, we had $1,149.5 million of cash and cash equivalents as well as $622.4 million of available borrowings under our Senior Credit Facility. Based on our existing debt agreements, we were in compliance with our financial and non-financial covenants as of December 31, 2020. Our failure to comply with these covenants could result in an event of default that, if not cured or waived by the lenders, could result in the acceleration of the Senior Credit Facility and 2¼% Notes. In addition, our failure to pay principal and interest when due is a default under the Senior Credit Facility, and in certain cases, would cause a cross default on the 2¼% Notes.

We are committed to a cash management strategy that maintains liquidity to adequately support the operation of the business, our growth strategy, as well as to withstand unanticipated business volatility, including any impact arising from the COVID-19 pandemic. Our cash management strategy includes maintaining the flexibility to pay down debt and/or repurchase shares depending on economic and other conditions. In connection with the implementation of our cash management strategy, our management may seek to retire or purchase our outstanding debt through cash purchases and/or exchanges for equity securities, in open market purchases, privately negotiated transactions or otherwise if we believe that it is in our best interests.

Such repurchases or exchanges, if any, will depend on prevailing market conditions, our liquidity requirements, contractual restrictions and other factors. The amounts involved may be material. Under the terms of the Merger Agreement, we are not permitted to pay cash dividends during the Pre-Closing Period (as defined therein), other than the pre-closing dividend approved by the Board of Directors on December 19, 2020.

The CARES Act was enacted on March 27, 2020, in response to the COVID-19 pandemic and the negative impacts that it is having on the global economy and U.S. companies. The CARES Act includes various financial measures to assist companies, including temporary changes to income and non-income-based tax laws. Through these provisions, as of December 31, 2020, we have delayed $21.4 million of payroll tax payments. Additionally, in accordance with the provisions of the CARES Act, we accelerated depreciation on qualified improvement property placed in service after December 31, 2017 for income tax purposes.

In light of the pending Merger, we do not expect to pursue strategic acquisitions at this time. If the Merger is not completed for any reason, we would expect to consider exploring possible strategic acquisitions. Potential future business acquisitions depend, in part, on the availability of financial resources at an acceptable cost of capital. We expect to utilize cash on hand and cash generated by operations, as well as cash available under our Senior Credit Facility, which may involve renegotiation of credit limits to finance any future acquisitions. Other sources of capital could include the issuance of common and/or preferred stock, the placement of debt, or combination of both. We periodically evaluate capital markets and may access such markets when circumstances appear favorable. We believe that sufficient capital resources will be available from one or several of these sources to finance any future acquisitions. However, no assurances can be made that acceptable financing will be available, or that acceptable acquisition candidates will be identified, or that any such acquisitions will be accretive to earnings.

On March 13, 2020, we announced that our Board of Directors authorized and approved a new share repurchase program allowing us to repurchase our outstanding common stock with an aggregate market value of up to $100 million over a period of up to 18 months; however, management has discretion as to whether any repurchases will be executed. The timing of any share repurchases will be based on available liquidity, cash flows and general market conditions. The repurchase program may be executed through various methods, including open market purchases or privately negotiated transactions. During 2020, we repurchased 1.3 million of our common shares at a cost of $51.7 million which leaves $48.3 million of market value remaining for repurchase under the program at management's discretion.

As disclosed in Notes 8(a) and 8(b) in the consolidated financial statements in Item 8 of this Report, we have exposure for certain legal and environmental matters. We believe that it is currently not possible to estimate the impact, if any, that the ultimate resolution of certain of these matters will have on our financial position, results of operations, or cash flows.

Major factors that could adversely impact our forecasted operating cash flows and our financial condition are described in Part I, Item 1A. Risk Factors. In addition, our liquidity and financial condition will continue to be affected by changes in prevailing interest rates on the portion of debt that bears interest at variable interest rates.

Contractual Obligations:

We have contractual obligations and commitments in the form of debt obligations, operating leases, certain other liabilities, and other commitments. The following table summarizes our contractual obligations as of December 31, 2020:

	Payments due by period				
	Total	Less than 1 year	1-3 years	3-5 years	After 5 years
	(In millions)				
Long-term debt:					
Senior debt	$ 308.5	$ 26.3	$ 282.2	$ —	$ —
Convertible senior notes (1)	300.0	300.0	—	—	—
Finance lease obligations	45.6	2.1	3.2	3.0	37.3
Interest on long-term debt (2)	63.1	15.0	27.1	4.6	16.4
Postretirement medical and life insurance benefits (3)	21.0	3.4	5.7	4.5	7.4
Operating leases	56.4	14.9	19.6	5.9	16.0
Purchase obligations (4)	1,352.8	863.9	485.3	3.0	0.6
Conditional asset retirement obligations (5)	51.4	—	21.5	1.4	28.5
Total	$2,198.8	$ 1,225.6	$ 844.6	$ 22.4	$ 106.2

(1) Holders may convert their 2¼% Notes at their option from January 1, 2021, through March 31, 2021, because our closing stock price exceeded $33.80 for at least 20 days in the 30 day period prior to December 31, 2020. We have a stated intention to cash settle the principal amount of the 2¼% Notes with the conversion premium to be settled in common shares. Accordingly, the 2¼% Notes are classified as a current liability as of December 31, 2020. See Notes 6 and 15 in the consolidated financial statements in Item 8 of this Report for additional information.

(2) Includes interest on variable debt calculated based on interest rates at December 31, 2020.

(3) The payments presented above are expected payments for the next 10 years. The payments for postretirement medical and life insurance benefits reflect the estimated benefit payments of the plans using the provisions currently in effect. The obligation related to postretirement medical and life insurance benefits is actuarially determined on an annual basis. A substantial portion of these amounts are recoverable through our contracts with the U.S. government.

(4) Purchase obligations represent open purchase orders and other commitments to suppliers, subcontractors, and other outsourcing partners for equipment, materials, and supplies in the normal course of business. These amounts are based on volumes consistent with anticipated requirements to fulfill purchase orders or contracts for product deliveries received, or expected to be received, from customers. A substantial portion of these amounts are recoverable through our contracts with the U.S. government.

(5) The conditional asset retirement obligations presented are related to our Aerospace and Defense segment and are allowable costs under our contracts with the U.S. government.

We expect to make cash contributions of approximately $94 million to our tax-qualified defined benefit pension plan in 2021. We generally are able to recover contributions related to our tax-qualified defined benefit pension plan as allowable costs on our U.S. government contracts, but there can be differences between when we contribute to our tax-qualified defined benefit pension plan under pension funding rules and recover it under CAS.

Arrangements with Off-Balance Sheet Risk:

See Note 8(d) in the consolidated financial statements in Item 8 of this Report for information relating to our off-balance sheet risk.

Critical Accounting Policies:

Our financial statements are prepared in accordance with GAAP that offer acceptable alternative methods for accounting for certain items affecting our financial results, such as determining inventory cost, depreciating long-lived assets, and recognizing revenues.

The preparation of financial statements requires the use of estimates, assumptions, judgments, and interpretations that can affect the reported amounts of assets, liabilities, revenues, and expenses, the disclosure of contingent assets and liabilities and other supplemental disclosures. The development of accounting estimates is the responsibility of our management. Although we believe that the positions we have taken with regard to uncertainties are reasonable, others might reach different conclusions and our positions can change over time as more information becomes available. If an accounting estimate changes, its effects are accounted for prospectively and, if significant, disclosed in notes of the consolidated financial statements.

The areas most affected by our accounting policies and estimates are revenue recognition, other contract considerations, goodwill, retirement benefit plans, litigation, environmental remediation costs and recoveries, and income taxes. Except for income taxes, which are not allocated to our operating segments, these areas affect the financial results of our business segments.

For a discussion of all of our accounting policies, including the accounting policies discussed below, see Note 1 in the consolidated financial statements in Item 8 of this Report.

Revenue Recognition

In our Aerospace and Defense segment, the majority of our revenue is earned from long-term contracts to design, develop, and manufacture aerospace and defense products, and provide related services, for our customers, including the U.S. government, major aerospace and defense prime contractors, and the commercial sector. Each customer contract defines our distinct performance obligations and the associated transaction price for each obligation. A contract may contain one or multiple performance obligations. In certain circumstances, multiple contracts with a customer are required to be combined in determining the distinct performance obligation. For contracts with multiple performance obligations, we allocate the contracted transaction price to each performance obligation based upon the relative standalone selling price, which represents the price at which we would sell the promised good or service separately to the customer. We determine the standalone selling price based upon the facts and circumstances of each obligated good or service. The majority of our contracts have no observable standalone selling price since the associated products and services are customized to customer specifications. As such, the standalone selling price generally reflects our forecast of the total cost to satisfy the performance obligation plus an appropriate profit margin.

Contract modifications are routine in the performance of our long-term contracts. Contracts are often modified to account for changes in contract specifications or requirements. In most instances, contract modifications are for goods or services that are not distinct, and, therefore, are accounted for as part of the existing contract.

We recognize revenue as each performance obligation is satisfied. The majority of our aerospace and defense performance obligations are satisfied over time either as the service is provided, or as control transfers to the customer. Transfer of control is evidenced by our contractual right to payment for work performed to date plus a reasonable profit on contracts with highly customized products that we have no alternative use for. We measure progress on substantially all our performance obligations using the cost-to-cost method, which we believe best depicts the transfer of control of goods and services to the customer. Under the cost-to-cost method, we record revenues based upon costs incurred to date relative to the total estimated cost at completion. Contract costs include labor, material, overhead, and general and administrative expenses, as appropriate.

Recognition of revenue and profit on long-term contracts requires the use of assumptions and estimates related to the total contract value, the total cost at completion, and the measurement of progress towards completion for each performance obligation. Due to the nature of the programs, developing the estimated total contract value and total cost at completion for each performance obligation requires the use of significant judgment.

The contract value of long-term contracts may include variable consideration, such as incentives, awards, or penalties. The value of variable consideration is generally determined by contracted performance metrics, which may include targets for cost, performance, quality, and schedule. We include variable consideration in the transaction price for the respective performance obligation at either estimated value, or most likely amount to be earned, based upon our assessment of expected performance. We record these amounts only to the extent it is probable that a significant reversal of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is resolved.

We evaluate the contract value and cost estimates for performance obligations at least quarterly and more frequently when circumstances significantly change. Factors considered in estimating the work to be completed include, but are not limited to: labor productivity, the nature and technical complexity of the work to be performed, availability and cost volatility of materials, subcontractor and vendor performance, warranty costs, volume assumptions, anticipated labor agreements, inflationary trends, schedule and performance delays, availability of funding from the customer, and the recoverability of costs incurred outside the original contract included in any estimates to complete. When our estimate of total costs to be incurred to satisfy a performance obligation exceeds the expected revenue, we recognize the loss immediately. When we determine that a change in estimates has an impact on the associated profit of a performance obligation, we record the cumulative positive or negative adjustment to the statement of operations. Changes in estimates and assumptions related to the status of certain long-term contracts may have a material effect on our operating results. The following table summarizes the impact of the changes in significant contract accounting estimates on our Aerospace and Defense segment operating results:

	Year Ended December 31,	
	2020	2019
	(In millions, except per share amounts)	
Net favorable effect of the changes in contract estimates on net sales	$ 38.5	$ 38.6
Favorable effect of the changes in contract estimates on income before income taxes	45.1	38.4
Favorable effect of the changes in contract estimates on net income	34.5	28.2
Favorable effect of the changes in contract estimates on basic EPS	0.44	0.36
Favorable effect of the changes in contract estimates on diluted EPS	0.42	0.34

See Note 1 in the consolidated financial statements in Item 8 of this Report for additional information.

Other Contract Considerations

The majority of Aerospace and Defense segment sales are driven by pricing based on costs incurred to produce products and perform services under contracts with the U.S. government. Cost-based pricing is determined under the FAR and CAS. The FAR and CAS provide guidance on the types of costs that are allowable and allocable in establishing prices for goods and services from U.S. government contracts. For example, costs such as charitable contributions, advertising, interest expense, and public relations are unallowable, and therefore not recoverable through sales. In addition, we may enter into agreements with the U.S. government that address the subjects of allowability and allocability of costs to contracts for specific matters.

We closely monitor compliance with and the consistent application of our critical accounting policies related to contract accounting. We review the status of contracts through periodic contract status and performance reviews. Also, regular and recurring evaluations of contract cost, scheduling and technical matters are performed by management personnel independent from the business segment performing work under the contract. Costs incurred and allocated to contracts with the U.S. government are reviewed for compliance with regulatory standards by our personnel, and are subject to audit by the DCAA. Accordingly, we record an allowance on our unbilled receivables for amounts of potential contract overhead costs which may not be successfully negotiated and collected.

Retirement Benefit Plans

We discontinued future benefit accruals for our defined benefit pension plans in 2009. We provide medical and life insurance benefits to certain eligible retired employees, with varied coverage by employee group. Annual charges are made for the cost of the plans, including interest costs on benefit obligations, and net amortization and deferrals, increased or reduced by the return on assets. We also sponsor a defined contribution 401(k) plan and participation in the plan is available to all employees.

Retirement benefits are a significant cost of doing business and represent obligations that will be ultimately settled far in the future and therefore are subject to estimates. We generally are able to recover cash contributions related to our tax-qualified defined benefit pension plan as allowable costs on our U.S. government contracts, but there is a lag between when we contribute cash to our tax-qualified defined benefit pension plan under pension funding rules and recover it under our U.S. government contracts. Our pension and medical and life insurance benefit obligations and related costs are calculated using actuarial concepts in accordance with GAAP. We are required to make assumptions regarding such variables as the expected long-term rate of return on assets and the discount rate applied to determine the retirement benefit obligations and expense (income) for the year.

The following table presents the assumptions to determine the benefit obligations:

	Pension Benefits		Medical and Life Insurance Benefits	
	As of December 31,		As of December 31,	
	2020	2019	2020	2019
Discount rate	2.52 %	3.28 %	2.28 %	3.19 %

The following table presents the assumptions to determine the retirement benefits expense (income):

	Pension Benefits		Medical and Life Insurance Benefits	
	Year Ended December 31,		Year Ended December 31,	
	2020	2019	2020	2019
Discount rate	3.28 %	4.27 %	3.19 %	4.09 %
Expected long-term rate of return on assets	7.00 %	7.00 %	*	*

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* Not applicable as our medical and life insurance benefits are unfunded.

The discount rate represents the current market interest rate used to determine the present value of future cash flows currently expected to be required to settle pension obligations. Based on market conditions, discount rates can experience significant variability. Changes in discount rates can significantly change the liability and, accordingly, the funded status of the pension plan. The assumed discount rate represents the market rate available for investments in high-quality fixed income instruments with maturities matched to the expected benefit payments for pension and medical and life insurance benefit plans.

The expected long-term rate of return on assets represents the rate of earnings expected in the funds invested, and funds to be invested, to provide for anticipated benefit payments to plan participants. We evaluated the historical investment performance, current and expected asset allocation, and, with input from our external advisors, developed best estimates of future investment performance.

Market conditions and interest rates significantly affect assets and liabilities of our pension plans. Pension accounting permits market gains and losses to be deferred and recognized over a period of years. This "smoothing" results in the creation of other accumulated income or loss which will be amortized to pension costs in future years. The accounting method we utilize recognizes one-fifth of the unamortized gains and losses in the market-related value of pension assets and all other gains and losses including changes in the discount rate used to calculate the benefit obligation each year. Investment gains or losses for this purpose are the difference between the expected return and the actual return on the market-related value of assets which smoothes asset values over three years. Although the smoothing period mitigates some volatility in the calculation of annual pension costs, future pension costs are impacted by changes in the market value of assets and changes in interest rates.

The following table summarizes the effects of a one-percentage-point change in key assumptions on the projected benefit obligations as of December 31, 2020, and on retirement benefits expense for 2020:

	Pension Benefits and Medical and Life Insurance Benefits Discount Rate		Expected Long-term Rate of Return	Assumed Healthcare Cost Trend Rate	
	Net Periodic Benefit Expense	Projected Benefit Obligation	Net Periodic Pension Benefit Expense	Net Periodic Medical and Life Insurance Benefit Expense	Accumulated Benefit Obligation
			(In millions)		
1% decrease	$18.3	$150.5	$8.6	$(0.1)	$(0.3)
1% increase	(15.7)	(126.0)	(8.7)	0.1	0.3

Environmental Reserves and Estimated Recoveries

For a discussion of our accounting for environmental remediation obligations and costs and related legal matters, see "Environmental Matters" above and Notes 8(b) and 8(c) in the consolidated financial statements in Item 8 of this Report.

We accrue for costs associated with the remediation of environmental contamination when it becomes probable that a liability has been incurred, and when our costs can be reasonably estimated. In most cases, only a range of reasonably probable costs can be estimated. In establishing the reserves, the most probable estimated amount is used when determinable, and the minimum amount is used when no single amount in the range is more probable. Environmental reserves include the costs of completing remedial investigation and feasibility studies, remedial and corrective actions, regulatory oversight costs, the cost of operation and maintenance of the remedial action plan, and employee compensation costs for employees who are expected to devote a significant amount of time to remediation efforts. Calculation of environmental reserves is based on the evaluation of currently available information with respect to each individual environmental site and considers factors such as existing technology, presently enacted laws and regulations, and prior experience in remediation of contaminated sites. Such estimates are based on the expected costs of investigation and remediation and the likelihood that other potentially responsible parties will be able to fulfill their commitments at sites where we may be jointly or severally liable.

At the time a liability is recorded for future environmental costs, we record an asset for estimated future recoveries that are estimable and probable. Some of our environmental costs are eligible for future recovery in the pricing of our products and services to the U.S. government and under existing third party agreements. We consider the recovery probable based on the Global Settlement, U.S. government contracting regulations, and our long history of receiving reimbursement for such costs.

Income Taxes

We file a consolidated U.S. federal income tax return for the Company and our 100% owned consolidated subsidiaries. The deferred tax assets and/or liabilities are determined by multiplying the differences between the financial reporting and tax reporting bases for assets and liabilities by the enacted tax rates expected to be in effect when such differences are recovered or settled. The effect on deferred taxes of a change in tax rates is recognized in the period of the enactment date of the change.

The carrying value of our deferred tax assets is dependent upon our ability to generate sufficient taxable income in the future. A valuation allowance is required when it is more likely than not that all or a portion of a deferred tax asset will not be realized. A review of all available positive and negative evidence is considered, including our past and future performance, the market environment in which we operate, the utilization of tax attributes in the past, the length of carryback and carryforward periods, and evaluation of potential tax planning strategies.

We believe that certain positions may be challenged by taxing authorities. Settlement of any challenge can result in no change, a complete disallowance, or a partial adjustment reached through negotiations or litigation. Our tax reserves reflect the difference between the tax benefit claimed on tax returns and the amount recognized in the financial statements. The accounting standards provide guidance for the recognition and measurement in financial statements of uncertain tax positions taken or expected to be taken in a tax return. The evaluation of a tax position is a two-step process, the first step being recognition. We determine whether it is more likely than not that a tax position will be sustained upon tax examination, including resolution of any related appeals or litigation, based on only the technical merits of the position. The technical merits of a tax position are derived from both statutory and judicial authority (legislation and statutes, legislative intent, regulations, rulings, and case law) and their applicability to the facts and circumstances of the tax position. If a tax position does not meet the more likely than not recognition threshold, the benefit of that position is not recognized in the financial statements. The second step is measurement. A tax position that meets the more likely than not recognition threshold is measured to determine the amount of benefit to recognize in the financial statements. The tax position is measured as the largest amount of benefit that is greater than 50% likely of being realized upon ultimate resolution with a taxing authority. As the examination process progresses with tax authorities, adjustments to tax reserves may be necessary to reflect taxes payable upon settlement. Tax reserve adjustments related to positions impacting the effective tax rate affect the provision for income taxes. Tax reserve adjustments related to positions impacting the timing of deductions impact deferred tax assets and liabilities.

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

Policies and Procedures

As an element of our normal business practice, we have established policies and procedures for managing our exposure to changes in interest rates.

The objective in managing exposure to interest rate changes is to limit the impact of interest rate changes on earnings and cash flow and to make overall borrowing costs more predictable. To achieve this objective, we may use interest rate hedge transactions or other interest rate hedge instruments to manage the net exposure to interest rate changes related to our portfolio of borrowings and to balance our fixed rate compared with variable rate debt. We did not enter into any interest rate hedge transactions or instruments during the past three years.

Interest Rate Risk

We are exposed to market risk principally due to changes in interest rates related to our borrowings, cash and cash equivalents, marketable securities, and pension assets and liabilities.

Borrowings

Debt with interest rate risk includes borrowings under our Senior Credit Facility. As of December 31, 2020, our debt principal amounts excluding finance lease obligations totaled $608.5 million: $300.0 million, or 49%, was at a fixed rate of 2.25%; and $308.5 million, or 51%, was at a variable rate of 1.90%.

The following table summarizes the estimated fair value and principal amount for outstanding debt obligations excluding finance lease obligations:

	Fair Value		Principal Amount	
	As of December 31,		As of December 31,	
	2020	2019	2020	2019
	(In millions)			
Term loan	$ 306.5	$ 328.1	$ 308.5	$ 328.1
2¼% Notes	609.5	546.0	300.0	300.0
	$ 916.0	$ 874.1	$ 608.5	$ 628.1

The fair value of the 2¼% Notes was determined using broker quotes that are based on open markets for our debt securities (Level 2 securities). The fair value of the term loan at December 31, 2020, was estimated based on a third-party model used to derive a relative value price using comparable corporate loans within the same industry, credit quality, and currency. At December 31, 2019, the term loan carrying value approximated fair value.

Cash and Marketable Securities

We also have exposure to changes in interest rates related to interest earned and market value on our cash and cash equivalents and marketable securities. Our cash and cash equivalents and marketable securities consist of cash, time deposits, money market funds, and investment grade corporate debt securities. Our investment policy and strategy are focused on preservation of capital and supporting our liquidity requirements. Changes in U.S. interest rates affect the interest earned on our cash and cash equivalents and marketable securities, and the market value of those securities.

Pension Assets and Liabilities

Our tax-qualified pension assets and liabilities are subject to interest rate risk. The interest rate risk related to our tax-qualified pension assets and liabilities can be found in the "Retirement Benefit Plans" discussion above.

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

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of Aerojet Rocketdyne Holdings, Inc.

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Aerojet Rocketdyne Holdings, Inc. and its subsidiaries (the "Company") as of December 31, 2020 and 2019, and the related consolidated statements of operations, of comprehensive income, of stockholders' equity and of cash flows for each of the three years in the period ended December 31, 2020, including the related notes (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2020, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 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 accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2020, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the COSO.

Change in Accounting Principle

As discussed in Note 4 to the consolidated financial statements, the Company changed the manner in which it accounts for leases in 2019, and as discussed in Note 14 to the consolidated financial statements, the Company changed the manner in which it accounts for revenue from contracts with customers in 2018.

Basis for Opinions

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

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

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

Definition and Limitations of Internal Control over Financial Reporting

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

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

Critical Audit Matters

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

Revenue recognition - estimated total cost at completion on fixed-price contracts

As described in Note 1 to the consolidated financial statements, approximately 61% of total net sales of $2,073 million are from fixed-price revenue contracts for the year ended December 31, 2020. These contracts present the risk of unreimbursed cost overruns, potentially resulting in lower than expected contract profits and margins. The Company recognizes revenue as each performance obligation is satisfied. The majority of the Company's aerospace and defense performance obligations are satisfied over time either as the service is provided, or as control transfers to the customer. Transfer of control is evidenced by the Company's contractual right to payment for work performed to date plus a reasonable profit on contracts with highly customized products that have no alternative use to the Company. Management measures progress on substantially all its performance obligations using the cost-to-cost method, which management believes best depicts the transfer of control of goods and services to the customer. Under the cost-to-cost method, management records revenues based upon costs incurred to date relative to the total estimated cost at completion. Recognition of revenue and profit on long-term contracts requires the use of assumptions and estimates related to the total contract value, the total cost at completion, and the measurement of progress towards completion for each performance obligation. Due to the nature of the programs, developing the estimated total contract value and total cost at completion for each performance obligation requires the use of significant judgment. As described in Note 1, factors considered in estimating the work to be completed include, but are not limited to, labor productivity, the nature and technical complexity of the work to be performed, availability and cost volatility of materials, subcontractor and vendor performance, warranty costs, volume assumptions, anticipated labor agreements, inflationary trends, schedule and performance delays, availability of funding from the customer, and the recoverability of costs incurred outside the original contract included in any estimates to complete.

The principal considerations for our determination that performing procedures relating to revenue recognition - estimated total cost at completion on fixed-price contracts is a critical audit matter are the significant judgment by management when estimating the total cost at completion for such contracts; this in turn led to a high degree of auditor judgment, subjectivity, and effort in performing procedures to evaluate significant assumptions used in management's estimated total cost at completion for fixed-price contracts related to labor productivity, the nature and technical complexity of the work to be performed, availability and cost volatility of materials, subcontractor and vendor performance, and schedule and performance delays.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to the revenue recognition process, including controls over the development of estimated total cost at completion on fixed-price contracts. These procedures also included, among others, testing management's process for the estimate of its total cost at completion for a sample of contracts, which included testing inception-to-date actual costs, and evaluating the reasonableness of significant assumptions related to labor productivity, the nature and technical complexity of the work to be performed, availability and cost volatility of materials, subcontractor and vendor performance, and schedule and performance delays. Evaluating the reasonableness of significant assumptions involved assessing management's ability to reasonably estimate the total cost to complete on fixed-price contracts by (i) performing a comparison of estimated labor and material costs to complete to agreements with third parties or actual costs incurred on the sampled contract or similar completed contracts, (ii) evaluating the timely identification of circumstances that may warrant a modification to estimated total cost to complete, and (iii) testing management's process for identifying and estimating risks that could result in schedule or performance delays.

/s/ PricewaterhouseCoopers LLP

Sacramento, California
February 18, 2021
We have served as the Company's auditor since 2006.

Aerojet Rocketdyne Holdings, Inc.
Consolidated Statements of Operations

	Year Ended December 31,		
	2020	2019	2018
	(In millions, except per share amounts)		
Net sales	$ 2,072.7	$ 1,981.5	$ 1,895.9
Operating costs and expenses:			
Cost of sales (exclusive of items shown separately below)	1,701.3	1,613.6	1,549.4
Selling, general and administrative expense	56.1	53.6	43.8
Depreciation and amortization	65.3	74.5	72.3
Other expense (income), net:			
Environmental remediation provision adjustments	4.3	2.1	(36.9)
Other	5.1	(0.5)	(3.3)
Total operating costs and expenses	1,832.1	1,743.3	1,625.3
Operating income	240.6	238.2	270.6
Non-operating:			
Retirement benefits expense	36.6	26.1	57.6
Interest income	(6.3)	(15.5)	(10.0)
Interest expense	30.1	35.7	34.4
Total non-operating expense, net	60.4	46.3	82.0
Income before income taxes	180.2	191.9	188.6
Income tax provision	42.5	50.9	51.3
Net income	$ 137.7	$ 141.0	$ 137.3
Earnings per share of common stock			
Basic earnings per share	$ 1.76	$ 1.79	$ 1.80
Diluted earnings per share	$ 1.66	$ 1.69	$ 1.75
Weighted average shares of common stock outstanding, basic	77.4	77.2	74.8
Weighted average shares of common stock outstanding, diluted	81.9	81.7	76.8
Cash dividends declared per share	$ 5.00	$ —	$ —

See Notes to Consolidated Financial Statements.

Aerojet Rocketdyne Holdings, Inc.
Consolidated Statements of Comprehensive Income

	Year Ended December 31,		
	2020	2019	2018
		(In millions)	
Net income	$ 137.7	$ 141.0	$ 137.3
Other comprehensive income:			
Amortization of net actuarial losses, net of $13.4 million, $7.6 million, and $16.8 million of income taxes in 2020, 2019, and 2018, respectively	40.3	29.5	49.7
Actuarial losses, net of $10.4 million, $6.9 million, and $5.5 million of income taxes in 2020, 2019, and 2018, respectively	(31.5)	(26.5)	(16.4)
Amortization of prior service costs, net of income taxes	0.1	(0.1)	(0.1)
Other comprehensive income, net of income taxes	8.9	2.9	33.2
Comprehensive income	$ 146.6	$ 143.9	$ 170.5

See Notes to Consolidated Financial Statements.

Aerojet Rocketdyne Holdings, Inc.
Consolidated Balance Sheets

	As of December 31, 2020	As of December 31, 2019
	(In millions, except per share amounts)	
ASSETS		
Current Assets		
Cash and cash equivalents	$ 1,149.5	$ 932.6
Restricted cash	3.0	3.0
Marketable securities	7.0	—
Accounts receivable, net	75.6	112.5
Contract assets	288.6	224.1
Other current assets, net	136.5	145.8
Total Current Assets	1,660.2	1,418.0
Noncurrent Assets		
Right-of-use assets	46.8	48.0
Property, plant and equipment, net	423.1	409.9
Recoverable environmental remediation costs	227.7	234.8
Deferred income taxes	81.1	121.9
Goodwill	161.4	161.4
Intangible assets	44.8	58.2
Other noncurrent assets, net	254.8	255.6
Total Noncurrent Assets	1,239.7	1,289.8
Total Assets	$ 2,899.9	$ 2,707.8
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current Liabilities		
Current portion of long-term debt	$ 299.9	$ 284.7
Accounts payable	99.1	127.3
Reserves for environmental remediation costs	39.8	40.1
Contract liabilities	407.2	262.3
Dividends payable	447.8	—
Other current liabilities	161.9	155.5
Total Current Liabilities	1,455.7	869.9
Noncurrent Liabilities		
Long-term debt	324.4	352.3
Reserves for environmental remediation costs	260.8	269.1
Pension benefits	405.2	398.9
Operating lease liabilities	35.7	39.1
Other noncurrent liabilities	184.6	201.8
Total Noncurrent Liabilities	1,210.7	1,261.2
Total Liabilities	2,666.4	2,131.1
Commitments and contingencies (Note 8)		
Stockholders' Equity		
Preferred stock, par value of $1.00; 15.0 million shares authorized; none issued or outstanding	—	—
Common stock, par value of $0.10; 150.0 million shares authorized; 76.8 million shares issued and outstanding as of December 31, 2020; 77.3 million shares issued and outstanding as of December 31, 2019	7.7	7.7
Other capital	583.0	573.3
Treasury stock at cost, 2.1 million at December 31, 2020; 0.8 million shares as of December 31, 2019	(64.4)	(12.7)
(Accumulated deficit) retained earnings	(65.2)	244.9
Accumulated other comprehensive loss, net of income taxes	(227.6)	(236.5)
Total Stockholders' Equity	233.5	576.7
Total Liabilities and Stockholders' Equity	$ 2,899.9	$ 2,707.8

See Notes to Consolidated Financial Statements.

Aerojet Rocketdyne Holdings, Inc.
Consolidated Statements of Stockholders' Equity

	Common Stock Shares	Common Stock Amount	Other Capital	Treasury Stock	(Accumulated Deficit) Retained Earnings	Accumulated Other Comprehensive Loss	Total Stockholders' Equity
	(In millions)						
December 31, 2017	73.6	$ 7.4	$ 503.1	$ (64.5)	$ (71.0)	$ (272.6)	$ 102.4
Net income	—	—	—	—	137.3	—	137.3
Other comprehensive income, net of income taxes	—	—	—	—	—	33.2	33.2
Cumulative effect of change in accounting guidance	—	—	—	—	37.6	—	37.6
Contribution of treasury stock to retirement benefit plan	2.7	0.3	42.9	51.8	—	—	95.0
Repurchase of shares for option cost and to satisfy tax withholding obligations	—	—	(3.3)	—	—	—	(3.3)
Stock-based compensation and shares issued under equity plans, net	0.5	—	19.1	—	—	—	19.1
December 31, 2018	76.8	7.7	561.8	(12.7)	103.9	(239.4)	421.3
Net income	—	—	—	—	141.0	—	141.0
Other comprehensive income, net of income taxes	—	—	—	—	—	2.9	2.9
Repurchase of shares for option cost and to satisfy tax withholding obligations	(0.3)	—	(8.5)	—	—	—	(8.5)
Stock-based compensation and shares issued under equity plans, net	0.8	—	20.0	—	—	—	20.0
December 31, 2019	77.3	7.7	573.3	(12.7)	244.9	(236.5)	576.7
Net income	—	—	—	—	137.7	—	137.7
Other comprehensive income, net of income taxes	—	—	—	—	—	8.9	8.9
Cash dividends declared ($5.00 per share)	—	—	—	—	(447.8)	—	(447.8)
Purchase of treasury stock	(1.3)	—	—	(51.7)	—	—	(51.7)
Repurchase of shares for option cost and to satisfy tax withholding obligations	(0.3)	—	(20.0)	—	—	—	(20.0)
Stock-based compensation and shares issued under equity plans, net	1.1	—	29.7	—	—	—	29.7
December 31, 2020	76.8	$ 7.7	$ 583.0	$ (64.4)	$ (65.2)	$ (227.6)	$ 233.5

See Notes to Consolidated Financial Statements.

Aerojet Rocketdyne Holdings, Inc.
Consolidated Statements of Cash Flows

	Year Ended December 31,		
	2020	2019	2018
		(In millions)	
Operating Activities			
Net income	$ 137.7	$ 141.0	$ 137.3
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	65.3	74.5	72.3
Amortization of debt discount and deferred financing costs	9.9	9.4	8.9
Stock-based compensation	31.4	27.3	20.5
Retirement benefits, net	18.1	21.6	15.9
Other, net	(0.4)	(0.6)	(2.2)
Changes in assets and liabilities, net of effects from acquisition in 2019:			
Accounts receivable, net	36.9	28.8	(47.3)
Contract assets	(64.5)	11.0	10.5
Other current assets, net	9.2	(27.9)	21.5
Recoverable for environmental remediation costs	7.1	16.3	(20.0)
Other noncurrent assets	0.6	(6.3)	5.8
Accounts payable	(36.8)	20.3	(39.4)
Contract liabilities	144.9	(10.3)	29.2
Other current liabilities	(4.4)	(72.5)	40.9
Deferred income taxes	37.9	(5.7)	4.7
Reserves for environmental remediation costs	(8.6)	(18.7)	(13.5)
Other noncurrent liabilities and other	(20.5)	53.0	7.6
Net Cash Provided by Operating Activities	363.8	261.2	252.7
Investing Activities			
Capital expenditures	(54.6)	(42.9)	(43.2)
Purchases of marketable securities	(31.7)	—	(47.7)
Sale of marketable securities	25.0	—	68.1
Other	0.3	1.1	1.9
Net Cash Used in Investing Activities	(61.0)	(41.8)	(20.9)
Financing Activities			
Debt issuance costs	—	—	(3.3)
Debt principal payments	(21.7)	(20.8)	(25.3)
Proceeds from shares issued under equity plans	7.5	5.2	5.4
Repurchase of shares for withholding taxes and option costs under employee equity plans	(20.0)	(8.5)	(3.3)
Purchase of treasury stock	(51.7)	—	—
Net Cash Used in Financing Activities	(85.9)	(24.1)	(26.5)
Net Increase in Cash, Cash Equivalents and Restricted Cash	216.9	195.3	205.3
Cash, Cash Equivalents and Restricted Cash at Beginning of Year	935.6	740.3	535.0
Cash, Cash Equivalents and Restricted Cash at End of Year	$ 1,152.5	$ 935.6	$ 740.3
Supplemental disclosures of cash flow information			
Cash paid for interest	$ 19.7	$ 26.3	$ 25.3
Cash paid for income taxes	56.0	63.8	24.0
Cash refund for income taxes	13.3	2.0	5.2
Contribution of treasury stock to retirement benefit plans	—	—	95.0

See Notes to Consolidated Financial Statements.

Note 1. Summary of Significant Accounting Policies

a. Basis of Presentation and Nature of Operations

The consolidated financial statements of Aerojet Rocketdyne Holdings, Inc. ("Aerojet Rocketdyne Holdings" or the "Company") include the accounts of the Company and its 100% owned and majority owned subsidiaries. All significant intercompany accounts and transactions have been eliminated in consolidation. Certain reclassifications have been made to financial information for prior years to conform to the current year's presentation.

The Company's operations are organized into two segments:

Aerospace and Defense — includes the operations of the Company's wholly-owned subsidiary Aerojet Rocketdyne, Inc. ("Aerojet Rocketdyne"), a leading technology-based designer, developer and manufacturer of aerospace and defense products and systems for the United States ("U.S.") government, including the Department of Defense ("DoD"), the National Aeronautics and Space Administration ("NASA"), and major aerospace and defense prime contractors.

Real Estate — includes the activities of the Company's wholly-owned subsidiary Easton Development Company, LLC ("Easton") related to the re-zoning, entitlement, sale, and leasing of the Company's excess real estate assets.

The year of the Company's subsidiary, Aerojet Rocketdyne, ends on the last Saturday in December.

The preparation of the consolidated financial statements in conformity with accounting principles generally accepted in the United States of America ("GAAP") requires the Company to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. Actual results could differ from those estimates.

Merger

On December 20, 2020, the Company entered into an Agreement and Plan of Merger (the "Merger Agreement") with Lockheed Martin Corporation ("Lockheed Martin") and Mizar Sub, Inc., a wholly-owned subsidiary of Lockheed Martin ("Merger Sub"), pursuant to which, subject to the terms and conditions thereof, Merger Sub will merge with and into the Company (the "Merger") with the Company being the surviving corporation and a wholly-owned subsidiary of Lockheed Martin.

Subject to the terms and conditions set forth in the Merger Agreement, each share of common stock outstanding as of immediately prior to the effective time of the Merger will be automatically converted into the right to receive cash in an amount equal to $56.00 per share, without interest, less, to the extent paid or payable as outlined below, the amount per share of the Pre-Closing Dividend (defined below).

On December 19, 2020, the Company's Board of Directors declared a one-time cash dividend of $5.00 per share (including shares underlying the 2.25% Convertible Senior Notes ("2¼% Notes") participating on an as-converted basis) (the "Pre-Closing Dividend"). The Pre-Closing Dividend is payable on March 24, 2021, to the holders of the Company's shares and 2¼% Notes as of the close of business on March 10, 2021. The $56.00 per share price under the Merger Agreement is expected to be reduced to $51.00 after the payment of the Pre-Closing Dividend to the Company's stockholders and holders of its 2¼% Notes participating on an as-converted basis (or, in the unlikely event that closing occurs after March 10, 2021, but before March 24, 2021, to the extent the Pre-Closing Dividend is payable after the closing).

Closing of the Merger is anticipated to occur in the second half of 2021, subject to various customary conditions, including Company stockholder approval and regulatory approval under the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended.

Coronavirus ("COVID-19") Pandemic

During 2020, the Company's financial results and operations were not materially adversely impacted by the COVID-19 pandemic. As a defense industrial-base U.S. government contractor, the Company is considered an essential business by the U.S. and state governments and it continues to operate as such during the COVID-19 pandemic. The extent to which the Company's future financial results could be impacted by COVID-19 pandemic depends on future developments that are highly uncertain and cannot be predicted at this time. The Company is not aware of any specific event or circumstance that would require an update to its estimates or judgments or a revision of the carrying value of its assets or liabilities as of the date of issuance of this Annual Report on Form 10-K. These estimates may change, as new events occur and additional information is obtained. Actual results could differ materially from these estimates under different assumptions or conditions.

b. Cash and Cash Equivalents

All highly liquid debt instruments purchased with a remaining maturity at the date of purchase of three months or less are considered to be cash equivalents. The Company aggregates its cash balances by bank, and reclassifies any negative balances, if applicable, to other current liabilities.

c. Restricted Cash

As of December 31, 2020 and 2019, the Company designated $3.0 million as restricted cash to satisfy indemnification obligations for environmental remediation coverage.

d. Fair Value of Financial Instruments

Financial instruments are classified using a three-tiered fair value hierarchy, which prioritizes the inputs used in measuring fair value. These tiers include: Level 1, defined as observable inputs such as quoted prices in active markets; Level 2, defined as inputs other than quoted prices in active markets that are either directly or indirectly observable; and Level 3, defined as unobservable inputs in which little or no market data exists, therefore requiring an entity to develop its own assumptions.

		Fair value measurement as of December 31, 2020		
	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Other Observable Inputs (Level 2)	Unobservable Inputs (Level 3)
		(In millions)		
Money market funds	$ 569.3	$ 569.3	$ —	$ —
Commercial paper	232.0	—	232.0	—
Registered investment companies	2.5	2.5	—	—
Equity securities	7.0	7.0	—	—
Total	$ 810.8	$ 578.8	$ 232.0	$ —

		Fair value measurement as of December 31, 2019		
	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Other Observable Inputs (Level 2)	Unobservable Inputs (Level 3)
		(In millions)		
Money market funds	$ 626.0	$ 626.0	$ —	$ —
Registered investment companies	3.7	3.7	—	—
Commercial paper	99.9	—	99.9	—
Total	$ 729.6	$ 629.7	$ 99.9	$ —

As of December 31, 2020 and 2019, the total estimated fair value for commercial paper was classified as cash and cash equivalents as the remaining maturity at date of purchase was less than three months. In 2020, the Company recognized $0.3 million of unrealized gains on equity securities (component of interest income in the consolidated statements of operations).

The carrying amounts of certain of the Company’s financial instruments, including cash and cash equivalents, restricted cash, accounts receivable, accounts payable, accrued compensation, and other accrued liabilities, approximate fair value because of their short maturities.

The following table summarizes the estimated fair value and principal amount for outstanding debt obligations excluding finance lease obligations:

	Fair Value		Principal Amount	
	As of December 31,		As of December 31,	
	2020	2019	2020	2019
		(In millions)		
Term loan	$ 306.5	$ 328.1	$ 308.5	$ 328.1
2¼% Notes	609.5	546.0	300.0	300.0
	$ 916.0	$ 874.1	$ 608.5	$ 628.1

The fair value of the 2¼% Notes was determined using broker quotes that are based on open markets for the Company's debt securities (Level 2 securities). The fair value of the term loan at December 31, 2020, was estimated based on a third-party model used to derive a relative value price using comparable corporate loans within the same industry, credit quality, and currency. At December 31, 2019, the term loan carrying value approximated fair value.

e. Accounts Receivable, net

Accounts Receivable represent the Company's unconditional right to consideration under the contract and include amounts billed and currently due from long-term contract customers. The amounts are stated at their net estimated realizable value.

Other receivables represent amounts billed for revenue not derived from long-term contracts.

f. Inventories

Inventories are stated at cost (generally using the average cost method) or net realizable value. The Company capitalizes costs incurred in advance of contract award or funding in inventories if it determines that contract award or funding is probable.

Amounts previously capitalized are expensed when changes in facts and circumstances indicate that a contract award or funding is no longer probable. General and administrative costs incurred throughout 2020 and 2019 totaled $262.9 million and $273.9 million, respectively, and the cumulative amount of general and administrative costs in long-term contract inventories were estimated to be $1.8 million and $3.8 million as of December 31, 2020 and 2019, respectively. Inventories are included as a component of other current assets.

g. Income Taxes

The Company files a consolidated U.S. federal income tax return with its 100% owned consolidated subsidiaries. The deferred tax assets and/or liabilities are determined by multiplying the differences between the financial reporting and tax reporting bases for assets and liabilities by the enacted tax rates expected to be in effect when such differences are recovered or settled. The effect on deferred taxes of a change in tax rates is recognized in the period of the enactment date of the change.

The carrying value of the Company’s deferred tax assets is dependent upon its ability to generate sufficient taxable income in the future. A valuation allowance is required when it is more likely than not that all or a portion of a deferred tax asset will not be realized. A review of all available positive and negative evidence is considered, including the Company’s past and future performance, the market environment in which it operates, the utilization of tax attributes in the past, the length of carryback and carryforward periods, and evaluation of potential tax planning strategies.

h. Property, Plant and Equipment, net

Property, plant and equipment are recorded at cost. Refurbishment costs that extend the life or increase the value of an asset are capitalized in the property accounts, whereas ordinary maintenance and repair costs are expensed as incurred. Depreciation is computed principally by accelerated methods based on the following useful lives:

Buildings and improvements	9 - 40 years
Machinery and equipment	6 - 10 years

Costs related to software acquired, developed or modified solely to meet the Company's internal requirements (including cloud computing arrangements) and for which there are no substantive plans to market for sale are capitalized and depreciated over 3 to 7 years. Only costs incurred after the preliminary planning stage of the project and after management has authorized and committed funds to the project are eligible for capitalization.

i. Leases

The Company determines if an arrangement is a lease at inception. Operating leases are included in operating lease right-of-use ("ROU") assets, other current liabilities, and operating lease liabilities. Finance leases are included in property, plant and equipment and debt. Operating ROU assets and liabilities are recognized at commencement date based on the present value of lease payments over the lease term. Finance leases are recorded as an asset and an obligation at an amount equal to the present value of the minimum lease payments during the lease term. Amortization expense related to finance leases is included in depreciation and amortization expense.

For certain technology equipment leases, the Company accounts for lease and nonlease (service) components separately based on a relative fair market value basis. For all other leases, the Company accounts for the lease and nonlease components (e.g., common area maintenance) on a combined basis.

The discount rate used for leases is the Company's incremental borrowing rate for collateralized debt based on information available at the lease commencement date. Lease terms may include options to extend or terminate the lease when it is reasonably certain that the option will be exercised. Leases with a term of twelve months or less and that do not include a purchase option that is likely to be exercised are treated as short-term leases and are not reflected on the balance sheet. The Company leases certain facilities, machinery and equipment (including information technology equipment), and office buildings under long-term, non-cancelable operating and finance leases.

j. Real Estate Held for Entitlement and Leasing

The Company capitalizes all costs associated with the real estate entitlement and leasing process. The Company classifies activities related to the entitlement, sale, and leasing of its excess real estate assets as operating activities in the consolidated statements of cash flows. Real estate held for entitlement and leasing is included as a component of other noncurrent assets.

k. Goodwill

Goodwill represents the excess of the purchase price of an acquired enterprise or assets over the fair values of the identifiable assets acquired and liabilities assumed. All of the Company's recorded goodwill resides in the Aerospace and Defense reporting unit. Tests for impairment of goodwill are performed on an annual basis, or at any other time if events occur or circumstances indicate that the carrying amount of goodwill may not be recoverable. Circumstances that could trigger an impairment test include but are not limited to: a significant adverse change in the business climate or legal factors; adverse cash flow trends; an adverse action or assessment by a regulator; unanticipated competition; loss of key personnel; decline in stock price; and results of testing for recoverability of a significant asset group within a reporting unit.

The Company evaluates qualitative factors (including macroeconomic conditions, industry and market considerations, cost factors, and overall financial performance) to determine whether it is necessary to perform the first step of the goodwill test. This step is referred to as the "Step Zero" analysis. If it is determined that it is more likely than not (a likelihood of more than 50%) that the fair value of a reporting unit is less than its carrying amount, the Company will proceed to the quantitative ("Step One") analysis to determine the existence and amount of any goodwill impairment. The Company may also perform a Step One analysis from time to time to augment its qualitative assessment. The Company evaluated goodwill using a Step Zero analysis as of October 1, 2020 and 2019, and determined that goodwill was not impaired.

There can be no assurance that the Company’s estimates and assumptions made for purposes of its goodwill impairment testing will prove to be accurate predictions of the future. If the Company’s assumptions and estimates are incorrect, the Company may be required to record goodwill impairment charges in future periods.

l. Intangible Assets

Identifiable intangible assets, such as patents, trademarks, and licenses are recorded at cost or when acquired as part of a business combination at estimated fair value. Identifiable intangible assets are amortized based on when they provide the Company economic benefit, or using the straight-line method, over their estimated useful life. Amortization periods for identifiable intangible assets range from 7 years to 30 years.

m. Environmental Remediation

The Company expenses, on a current basis, recurring costs associated with managing hazardous substances and contamination in ongoing operations. The Company reviews on a quarterly basis estimated future remediation costs and has an established practice of estimating environmental remediation costs over a fifteen-year period, except for those environmental remediation costs with a specific contractual term. Environmental liabilities at the Baldwin Park Operable Unit ("BPOU") site are currently estimated through the term of the project agreement, which expires in May 2027. In establishing reserves, the most probable estimated amount is used when determinable, and the minimum amount is used when no single amount in the range is more probable. Environmental reserves include the costs of completing remedial investigation and feasibility studies, remedial and corrective actions, regulatory oversight costs, the cost of operation and maintenance of the remedial action plan, and employee compensation costs for employees who are expected to devote a significant amount of time to remediation efforts. Calculation of environmental reserves is based on the evaluation of currently available information with respect to each individual environmental site and considers factors such as existing technology, presently enacted laws and regulations, and prior experience in remediation of contaminated sites. Such estimates are based on the expected costs of investigation and remediation and the likelihood that other potentially responsible parties will be able to fulfill their commitments at sites where the Company may be jointly or severally liable.

At the time a liability is recorded for future environmental costs, the Company records an asset for estimated future recoveries that are estimable and probable. Some of the Company’s environmental costs are eligible for future recovery in the pricing of its products and services to the U.S. government and under existing third party agreements. The Company considers the recovery probable based on the Global Settlement, U.S. government contracting regulations, and its long history of receiving reimbursement for such costs (see Notes 8(b) and 8(c)).

n. Retirement Benefits

The Company discontinued future benefit accruals for the defined benefit pension plans in 2009. The Company provides medical and life insurance benefits ("postretirement benefits") to certain eligible retired employees, with varied coverage by employee group. Annual charges are made for the cost of the plans, including interest costs on benefit obligations, and net amortization and deferrals, increased or reduced by the return on assets. The Company also sponsors a defined contribution 401(k) plan and participation in the plan is available to all employees (see Note 7).

o. Conditional Asset Retirement Obligations

Conditional asset retirement obligations ("CAROs") are legal obligations associated with the retirement of long-lived assets. These liabilities are initially recorded at fair value and the expected asset retirement costs are capitalized by increasing the carrying amount of the related assets by the same amount as the liability. Asset retirement costs are subsequently depreciated over the useful lives of the related assets. Subsequent to initial recognition, the Company records period-to-period changes in the CARO liability resulting from the passage of time and revisions to either the timing or the amount of the estimate of the undiscounted cash flows.

CAROs associated with owned properties are based on estimated costs necessary for the legally required removal or remediation of various regulated materials, primarily asbestos disposal and radiological decontamination of an ordnance manufacturing facility. For leased properties, CAROs are based on the estimated cost of contractually required property restoration.

The following table summarizes the changes in the carrying amount of CAROs:

	Year Ended December 31,		
	2020	2019	2018
	(In millions)		
Balance at beginning of year	$ 51.4	$ 46.0	$ 44.0
(Reductions)/ additions and other, net	(2.7)	2.6	(0.5)
Accretion	2.7	2.8	2.5
Balance at end of year	$ 51.4	$ 51.4	$ 46.0

p. Loss Contingencies

The Company is currently involved in certain legal proceedings and has accrued its estimate of the probable costs and recoveries (in relation to environmental costs) for resolution of these claims. These estimates are based upon an analysis of potential results, assuming a combination of litigation and settlement strategies. It is possible, however, that future results of operations or cash flows for any particular period could be materially affected by changes in estimates or the effectiveness of strategies related to these proceedings.

q. Warranties

The Company provides product warranties in conjunction with certain product sales. The majority of the Company's warranties are a one-year standard warranty for parts, workmanship, and compliance with specifications. On occasion, the Company has made commitments beyond the standard warranty obligation. While the Company has contracts with warranty provisions, there is not a history of any significant warranty claims experience. A reserve for warranty exposure is made on a product by product basis when it is both estimable and probable. These costs are included in the program's estimate at completion and are expensed in accordance with the Company's revenue recognition methodology for that particular contract.

r. Revenue Recognition

In the Company's Aerospace and Defense segment, the majority of revenue is earned from long-term contracts to design, develop, and manufacture aerospace and defense products for, and provide related services to, the Company's customers, including the U.S. government and major aerospace and defense prime contractors. Each customer contract defines the Company's distinct performance obligations and the associated transaction price for each obligation. A contract may contain one or multiple performance obligations. In certain circumstances, multiple contracts with a customer are required to be combined in determining the distinct performance obligation. For contracts with multiple performance obligations, the Company allocates the contracted transaction price to each performance obligation based upon the relative standalone selling price, which represents the price at which the Company would sell the promised good or service separately to the customer. The Company determines the standalone selling price based upon the facts and circumstances of each obligated good or service. The majority of the Company's contracts have no observable standalone selling price since the associated products and services are customized to customer specifications. As such, the standalone selling price generally reflects the Company's forecast of the total cost to satisfy the performance obligation plus an appropriate profit margin.

Contract modifications are routine in the performance of the Company's long-term contracts. Contracts are often modified to account for changes in contract specifications or requirements. In most instances, contract modifications are for goods or services that are not distinct, and, therefore, are accounted for as part of the existing contract.

The Company recognizes revenue as each performance obligation is satisfied. The majority of the Company's aerospace and defense performance obligations are satisfied over time either as the service is provided, or as control transfers to the customer. Transfer of control is evidenced by the Company's contractual right to payment for work performed to date plus a reasonable profit on contracts with highly customized products that have no alternative use to the Company. The Company measures progress on substantially all its performance obligations using the cost-to-cost method, which the Company believes best depicts the transfer of control of goods and services to the customer. Under the cost-to-cost method, the Company records revenues based upon costs incurred to date relative to the total estimated cost at completion. Contract costs include labor, material, overhead, and general and administrative expenses, as appropriate.

Recognition of revenue and profit on long-term contracts requires the use of assumptions and estimates related to the total contract value, the total cost at completion, and the measurement of progress towards completion for each performance obligation. Due to the nature of the programs, developing the estimated total contract value and total cost at completion for each performance obligation requires the use of significant judgment.

The contract value of long-term contracts may include variable consideration, such as incentives, awards, or penalties. The value of variable consideration is generally determined by contracted performance metrics, which may include targets for cost, performance, quality, and schedule. The Company includes variable consideration in the transaction price for the respective performance obligation at either estimated value, or most likely amount to be earned, based upon the Company's assessment of expected performance. The Company records these amounts only to the extent it is probable that a significant reversal of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is resolved.

The Company evaluates the contract value and cost estimates for performance obligations at least quarterly and more frequently when circumstances significantly change. Factors considered in estimating the work to be completed include, but are not limited to: labor productivity, the nature and technical complexity of the work to be performed, availability and cost volatility of materials, subcontractor and vendor performance, warranty costs, volume assumptions, anticipated labor agreements, inflationary trends, schedule and performance delays, availability of funding from the customer, and the recoverability of costs incurred outside the original contract included in any estimates to complete. When the Company’s estimate of total costs to be incurred to satisfy a performance obligation exceeds the expected revenue, the Company recognizes the loss immediately. When the Company determines that a change in estimates has an impact on the associated profit of a performance obligation, the Company records the cumulative positive or negative adjustment to the statement of operations. Changes in estimates and assumptions related to the status of certain long-term contracts may have a material effect on the Company’s operating results. The following table summarizes the impact of the changes in significant contract accounting estimates on the Company’s Aerospace and Defense segment operating results:

	Year Ended December 31,		
	2020	**2019**	**2018**
	(In millions, except per share amounts)		
Net favorable effect of the changes in contract estimates on net sales	$ 38.5	$ 38.6	$ 68.2
Favorable effect of the changes in contract estimates on income before income taxes	45.1	38.4	59.1
Favorable effect of the changes in contract estimates on net income	34.5	28.2	43.1
Favorable effect of the changes in contract estimates on basic earnings per share ("EPS") of common stock	0.44	0.36	0.56
Favorable effect of the changes in contract estimates on diluted EPS	0.42	0.34	0.55

The 2020 net favorable changes in contract estimates were primarily driven by improved performance and risk retirements on the Terminal High Altitude Area Defense ("THAAD"), RS-68, RL10, and Patriot Advanced Capability-3 ("PAC-3") programs partially offset by cost growth on a portion of the Standard Missile program and the Commercial Crew program. The 2019 net favorable changes in contract estimates on income before income taxes were primarily driven by improved performance and risk retirements on the THAAD and PAC-3 programs. The 2018 net favorable changes in contract estimates on income before income taxes were primarily driven by risk retirements on the THAAD, RS-68, and RL10 programs and favorable overhead rate performance, partially offset by cost growth and performance issues on the Commercial Crew Development program.

In the Company’s Aerospace and Defense segment, the timing of revenue recognition, customer invoicing, and collections produces accounts receivable, contract assets, and contract liabilities on the Company’s Consolidated Balance Sheet. The Company invoices in accordance with contract payment terms either based upon a recurring contract payment schedule, or as contract milestones are achieved. Customer invoices, net of reserves, represent an unconditional right of consideration. When revenue is recognized in advance of customer invoicing, a contract asset is recorded. Conversely, when customers are invoiced in advance of revenue recognition, a contract liability is recorded. Unpaid customer invoices are reflected as accounts receivable. Amounts for overhead disallowances or billing decrements are reflected in contract assets and primarily represent estimates of potential overhead costs which may not be successfully negotiated and collected. The following table summarizes contract assets and liabilities:

	As of December 31,	
	2020	**2019**
	(In millions)	
Contract assets	$ 294.3	$ 243.5
Reserve for overhead rate disallowance	(5.7)	(19.4)
Contract assets, net of reserve	288.6	224.1
Contract liabilities	407.2	262.3
Net contract liabilities, net of reserve	$ (118.6)	$ (38.2)

Net contract liabilities increased by $80.4 million primarily due to an increase in contract advances partially offset by an increase in unbilled receivables. The decrease of $13.7 million in the reserve for overhead rate disallowance was primarily due to adjustments for final incurred costs from prior years which were subject to audit and review for allowability by the U.S. government. During 2020, the Company recognized sales of $223.3 million that were included in the Company’s contract liabilities as of December 31, 2019. During 2019, the Company recognized sales of $240.6 million that were included in the Company’s contract liabilities as of December 31, 2018. Contract assets included unbilled receivables of $286.0 million and $232.4 million as of December 31, 2020 and 2019, respectively. Approximately 19% of unbilled receivables at December 31, 2020, are expected to be collected after one year.

As of December 31, 2020, the Company’s total remaining performance obligations, also referred to as backlog, totaled $6.7 billion. The Company expects to recognize approximately 32%, or $2.2 billion, of the remaining performance obligations as sales over the next twelve months, an additional 24% the following twelve months, and 44% thereafter.

The Company's contracts are largely categorized as either "fixed-price" (largely used by the U.S. government for production-type contracts) or "cost-reimbursable" (largely used by the U.S. government for development-type contracts). Fixed-price contracts present the risk of unreimbursed cost overruns, potentially resulting in lower than expected contract profits and margins. This risk is generally lower for cost-reimbursable contracts which, as a result, generally have a lower margin. The following table summarizes the percentages of net sales by contract type:

	Year Ended December 31,		
	2020	2019	2018
Fixed-price	61 %	61 %	63 %
Cost-reimbursable	39	39	37

Revenue from real estate asset sales is recognized when a sufficient down-payment has been received, financing has been arranged and title, possession and other attributes of ownership have been transferred to the buyer. The allocation to cost of sales on real estate asset sales is based on a relative fair market value computation of the land sold which includes the basis on the Company's book value, capitalized entitlement costs, and an estimate of the Company's continuing financial commitment.

s. Research and Development ("R&D")

Company-funded R&D expenses (reported as a component of cost of sales) were $55.8 million, $65.1 million, and $46.7 million in 2020, 2019, and 2018, respectively. Company-funded R&D expenses include the costs of technical activities that are useful in developing new products, services, processes, or techniques, as well as expenses for technical activities that may significantly improve existing products or processes. These expenses are generally allocated among all contracts and programs in progress under U.S. government contractual arrangements. From time to time, the Company believes it is in its best interests to self-fund and not allocate costs for certain R&D activities to the U.S. government contracts.

Customer-funded R&D expenditures, which are funded from U.S. government contracts, totaled $628.7 million, $680.5 million, and $591.6 million in 2020, 2019, and 2018, respectively. Expenditures under customer-funded R&D U.S. government contracts are accounted for as sales and cost of sales.

t. Stock-based Compensation

The Company recognizes stock-based compensation in the statements of operations at the grant-date fair value of stock awards issued to employees and directors over the vesting period. The Company also grants Stock Appreciation Rights ("SARs") awards which are similar to the Company's employee stock options, but are settled in cash rather than in shares of common stock, and are classified as liability awards. Compensation cost for these awards is determined using a fair-value method and remeasured at each reporting date until the date of settlement. The Company accounts for forfeitures when they occur for consistency with the U.S. government recovery accounting practice.

u. Impairment or Disposal of Long-Lived Assets

Impairment of long-lived assets is recognized when events or circumstances indicate that the carrying amount of the asset, or related groups of assets, may not be recoverable. Circumstances which could trigger a review include, but are not limited to: significant decreases in the market price of the asset; significant adverse changes in the business climate or legal factors; accumulation of costs significantly in excess of the amount originally expected for the acquisition or construction of the asset; current period cash flow or operating losses combined with a history of losses or a forecast of continuing losses associated with the use of the asset; or a current expectation that the asset will more likely than not be sold or disposed of significantly before the end of its estimated useful life. The carrying amount of a long-lived asset is not recoverable if it exceeds the sum of the undiscounted cash flows expected to result from the use and eventual disposition of the asset. If the Company determines that an asset is not recoverable, then the Company would record an impairment charge if the carrying value of the asset exceeds its fair value.

A long-lived asset classified as "held for sale" is initially measured at the lower of its carrying amount or fair value less costs to sell. In the period that the "held for sale" criteria are met, the Company recognizes an impairment charge for any initial adjustment of the long-lived asset amount. Gains or losses not previously recognized resulting from the sale of a long-lived asset are recognized on the date of sale.

v. Concentrations

Dependence upon U.S. Government Programs and Contracts

The principal end user customers of the Company's products and technology are primarily agencies of the U.S. government. The following table summarizes the percentages of net sales by principal end user:

	Year Ended December 31,		
	2020	2019	2018
U.S. government	96 %	96 %	94 %
Non U.S. government customers	4	4	6

The following table summarizes the percentages of net sales for significant programs, all of which are included in the U.S. government sales and are comprised of multiple contracts:

	Year Ended December 31,		
	2020	2019	2018
RS-25 program	18 %	17 %	14 %
Standard Missile program	13	13	13
THAAD program	11	10	11
PAC-3 program	10	10	8

Major Customers

The following table summarizes the customers that represented more than 10% of net sales, each of which involves sales of several product lines and programs:

	Year Ended December 31,		
	2020	2019	2018
Lockheed Martin	34 %	33 %	30 %
NASA	21	21	18
Raytheon Technologies Corporation ("Raytheon")	17	17	19
ULA	*	10	17

* Less than 10%.

Credit Risk

Aside from investments held in the Company's retirement benefit plans, financial instruments that could potentially subject the Company to concentration of credit risk consist primarily of cash, cash equivalents, and trade receivables. The Company's cash and cash equivalents are held and managed by recognized financial institutions and are subject to the Company's investment policy. The investment policy outlines minimum acceptable credit ratings for each type of investment and limits the amount of credit exposure to any one security issue. The Company does not believe significant concentration of credit risk exists with respect to these investments.

The following table summarizes customers that represented more than 10% of accounts receivable, including unbilled receivables which are a component of contract assets:

	As of December 31,	
	2020	2019
Lockheed Martin	21 %	26 %
Raytheon	20	21
The Boeing Company	16	18
NASA	*	14

* Less than 10%.

Dependence on Single Source and Other Third Party Suppliers

The Company uses a significant quantity of raw materials that are highly dependent on market fluctuations and government regulations. Further, as a U.S. government contractor, the Company is often required to procure materials from suppliers capable of meeting rigorous customer and government specifications. As market conditions change for these companies, they often discontinue materials with low sales volumes or profit margins. The Company is often forced to either qualify new materials or pay higher prices to maintain the supply. To date the Company has been successful in establishing replacement materials and securing customer funding to address specific qualification needs of the programs. Prolonged disruptions in the supply of any of the Company's key raw materials, difficulty qualifying new sources of supply, implementing use of replacement materials or new sources of supply, and/or a continuing volatility in the prices of raw materials could have a material adverse effect on the Company's operating results, financial condition, and/or cash flows.

Workforce

As of December 31, 2020, 8% of the Company's employees were covered by collective bargaining agreements.

w. Related Parties

Warren G. Lichtenstein, the Executive Chairman of the Company is also the Executive Chairman of Steel Partners Holdings L.P. ("Steel Holdings") and the Chief Executive Officer of Steel Partners Ltd. ("SPL"). The Company received services of $0.1 million, $1.1 million, and $0.6 million in 2020, 2019, and 2018, respectively, from Steel Holdings and SPL, primarily included administrative services and the use of an aircraft for business travel. As of December 31, 2020 and 2019, the Company had liabilities due to such entities of $0.1 million and $0.1 million, respectively.

Lucas-Milhaupt, Inc., an indirect wholly-owned subsidiary of Steel Holdings, sold $0.3 million and $0.3 million in raw materials to the Company for the manufacture of its products in 2019 and 2018, respectively.

GAMCO Investors, Inc. ("GAMCO") owned 8% and 9% of the Company's common stock at December 31, 2020 and 2019, respectively. The Company received services of $0.8 million, $1.0 million, and $1.7 million in 2020, 2019, and 2018, respectively, from GAMCO for investment management fees of the Company's defined benefit pension plan assets.

Martin Turchin, a member of the Board of Directors of the Company is also a non-executive Vice Chairman of CB Richard Ellis ("CBRE"). The Company received services of $0.4 million from CBRE for lease commissions in 2018.

BlackRock, Inc. ("BlackRock") owned 15% and 15% of the Company's common stock at December 31, 2020 and 2019, respectively. The Company invests in money market funds managed by BlackRock.

The Vanguard Group, Inc. ("Vanguard") owned 10% and 11% of the Company's common stock at December 31, 2020 and 2019, respectively. Certain of the investment alternatives offered through the Company's 401(k) plan and grantor trust include funds managed by Vanguard.

x. Accounting Pronouncements

Recently Adopted Accounting Pronouncements

In August 2018, the Financial Accounting Standards Board ("FASB") issued guidance requiring a customer in a cloud computing service arrangement to follow the internal-use software guidance in order to determine which implementation costs to defer and recognize as an asset. The Company adopted this new standard as of January 1, 2020, on a prospective basis and the adoption of this guidance did not have a material impact on the Company's financial position, results of operations, or cash flows.

Recently Issued Accounting Pronouncements

In August 2020, the FASB issued guidance which simplifies the accounting for convertible instruments. This guidance eliminates certain models that require separate accounting for embedded conversion features, in certain cases. Additionally, among other changes, the guidance eliminates certain of the conditions for equity classification for contracts in an entity's own equity. The guidance also requires entities to use the if-converted method for all convertible instruments in the diluted earnings per share calculation and include the effect of share settlement for instruments that may be settled in cash or shares, except for certain liability-classified share-based payment awards. This guidance is effective for the Company beginning in the first quarter of 2022 and must be applied using either a modified or full retrospective approach. The Company is currently evaluating the impact this guidance will have on its consolidated financial statements.

Note 2. Earnings Per Share

The following table reconciles the numerator and denominator used to calculate basic and diluted EPS:

	Year Ended December 31,		
	2020	**2019**	**2018**
	(In millions, except per share amounts)		
Numerator:			
Net income	$ 137.7	$ 141.0	$ 137.3
Income allocated to participating securities	(1.7)	(2.6)	(2.9)
Net income for basic and diluted EPS	$ 136.0	$ 138.4	$ 134.4
Denominator:			
Basic weighted average shares	77.4	77.2	74.8
Effect of:			
$2^1/_4$% Notes	4.5	4.4	1.9
Awards issued under equity plans	—	0.1	0.1
Diluted weighted average shares	81.9	81.7	76.8
Basic EPS	$ 1.76	$ 1.79	$ 1.80
Diluted EPS	$ 1.66	$ 1.69	$ 1.75

Securities which would have been anti-dilutive are insignificant and are excluded from the computation of diluted earnings per share in all periods presented.

Note 3. Balance Sheet Accounts and Supplemental Disclosures

a. Accounts Receivable, net

	As of December 31,	
	2020	2019
	(In millions)	
Billed	$ 75.3	$ 122.9
Reserve on billed trade receivables	—	(10.6)
Other trade receivables	0.3	0.2
Accounts receivable, net	$ 75.6	$ 112.5

During 2020, the Company wrote-off $10.6 million of billed receivables that had previously been reserved.

b. Other Current Assets, net

	As of December 31,	
	2020	2019
	(In millions)	
Deferred costs recoverable from the U.S. government	$ 41.0	$ 47.1
Income tax receivable	46.9	43.4
Prepaid expenses	18.0	13.9
Inventories	10.0	24.0
Other	20.6	17.4
Other current assets, net	$ 136.5	$ 145.8

The income tax receivable balance at December 31, 2020 and 2019, includes amounts the Company expects to receive from amended returns and refund claims, and overpayment associated with tax returns.

c. Property, Plant and Equipment, net

	As of December 31,	
	2020	2019
	(In millions)	
Land	$ 71.2	$ 71.2
Buildings and improvements	433.4	434.9
Machinery and equipment, including capitalized software	471.3	488.2
Construction-in-progress	105.5	70.2
	1,081.4	1,064.5
Less: accumulated depreciation	(658.3)	(654.6)
Property, plant and equipment, net	$ 423.1	$ 409.9

Depreciation expense for 2020, 2019, and 2018 was $49.2 million, $58.1 million, and $56.1 million, respectively. The Company had $8.6 million of property, plant and equipment additions included in accounts payable as of December 31, 2020.

d. Goodwill.

The goodwill balance as of December 31, 2020 and 2019, relates to the Company’s Aerospace and Defense segment. The change of $0.1 million in the carrying amount of goodwill in 2019 was due to the 3D Material Technologies ("3DMT") acquisition.

e. Intangible Assets

	As of December 31, 2020		
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
		(In millions)	
Customer related	$ 87.2	$ 75.3	$ 11.9
Intellectual property\trade secrets	34.2	19.7	14.5
Trade name	21.0	5.4	15.6
Acquired technology	19.2	16.4	2.8
Intangible assets	$ 161.6	$ 116.8	$ 44.8

	As of December 31, 2019		
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
		(In millions)	
Customer related	$ 87.2	$ 65.9	$ 21.3
Intellectual property\trade secrets	34.2	17.1	17.1
Trade name	21.0	4.6	16.4
Acquired technology	19.2	15.8	3.4
Intangible assets	$ 161.6	$ 103.4	$ 58.2

The intangible asset balances as of December 31, 2020 and 2019, relates to the Company's Aerospace and Defense segment. Amortization expense related to intangible assets was $13.4 million, $13.6 million, and $13.7 million in 2020, 2019, and 2018, respectively.

Future amortization expense for the five succeeding years is estimated to be as follows:

Year Ending December 31,	Future Amortization Expense
	(In millions)
2021	$ 9.9
2022	6.6
2023	6.1
2024	4.8
2025	3.7
	$ 31.1

f. Other Noncurrent Assets, net

	As of December 31,	
	2020	2019
	(In millions)	
Real estate held for entitlement and leasing	$ 101.8	$ 100.3
Receivable from Northrop Grumman Corporation for environmental remediation costs	40.5	46.5
Deferred costs recoverable from the U.S. government	54.7	54.8
Other	57.8	54.0
Other noncurrent assets, net	$ 254.8	$ 255.6

g. Other Current Liabilities

	As of December 31, 2020	As of December 31, 2019
	(In millions)	
Accrued compensation and employee benefits	$ 118.0	$ 103.1
Other	43.9	52.4
Other current liabilities	$ 161.9	$ 155.5

h. Treasury Stock

During 2020, the Company repurchased 1.3 million of its common shares at a cost of $51.7 million. The Company reflects stock repurchases in its financial statements on a "settlement" basis.

i. Accumulated Other Comprehensive Loss, Net of Income Taxes

The following table presents the changes in accumulated other comprehensive loss by components, net of income taxes:

	Actuarial Losses, Net	Prior Service Credits (Costs), Net	Total
		(In millions)	
December 31, 2018	$ (239.4)	$ —	$ (239.4)
Actuarial losses, net of income taxes	(26.5)	—	(26.5)
Amortization of net actuarial losses and prior service credits, net of income taxes	29.5	(0.1)	29.4
December 31, 2019	(236.4)	(0.1)	(236.5)
Actuarial losses, net of income taxes	(31.5)	—	(31.5)
Amortization of net actuarial losses and prior service costs, net of income taxes	40.3	0.1	40.4
December 31, 2020	$ (227.6)	$ —	$ (227.6)

Note 4. Leases

In February 2016, the FASB issued guidance requiring lessees to recognize an ROU asset and a lease liability on the balance sheet for all leases with the exception of short-term leases. For lessees, leases will continue to be classified as either operating or finance leases in the income statement. The new standard allowed for the application of the standard on the adoption date without restatement of prior comparative periods presented or a modified retrospective transition method which required application of the new guidance at the beginning of the earliest comparative period presented. The Company adopted this new standard as of January 1, 2019, without restating prior comparative periods. The Company recorded an ROU asset and lease liability for operating leases at adoption of $51.7 million and $56.3 million, respectively.

The Company and its subsidiaries lease certain facilities, machinery and equipment, and office buildings under long-term, non-cancelable operating leases. The leases generally provide for renewal options ranging from one to twenty years.

The following table summarizes the Company's lease costs:

	Year Ended December 31, 2020	Year Ended December 31, 2019
	(In millions)	
Operating lease cost	$ 15.5	$ 14.2
Finance lease cost:		
Amortization	2.9	4.0
Interest on lease liabilities	2.7	2.9
Short-term lease cost	0.5	0.8
Total lease costs	$ 21.6	$ 21.9

Rent expense was $17.2 million in 2018.

The following table summarizes the supplemental cash flow information related to leases:

	Year Ended December 31,	
	2020	2019
	(In millions)	
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash flows for operating leases	$ 13.7	$ 14.2
Operating cash flows for finance leases	2.7	2.9
Financing cash flows for finance leases	2.1	3.3
Assets obtained in exchange for lease obligations:		
Operating leases	11.9	7.7
Finance leases	—	23.8

The following table summarizes the supplemental balance sheet information related to leases:

	As of December 31,	
	2020	2019
	(In millions)	
Operating leases:		
Operating lease right-of-use assets	$ 46.8	$ 48.0
Operating lease liabilities (component of other current liabilities)	$ 13.4	$ 12.0
Operating lease liabilities, noncurrent	35.7	39.1
	$ 49.1	$ 51.1
Finance leases:		
Property, plant and equipment	$ 52.9	$ 52.9
Accumulated depreciation	(8.6)	(5.8)
Property, plant and equipment, net	$ 44.3	$ 47.1
Current portion of long-term debt	$ 2.2	$ 2.1
Long-term debt	43.4	45.6
Total finance lease liability	$ 45.6	$ 47.7
Weighted-average remaining lease term (in years):		
Operating leases	7	6
Finance leases	17	18
Weighted-average discount rate:		
Operating leases	4.4 %	4.7 %
Finance leases	5.9 %	5.2 %

The Company has additional information technology equipment operating leases that have not yet commenced amounting to $0.9 million. These operating leases will commence between 2021 and 2022 with lease terms of up to two years.

The following table presents the maturities of lease liabilities and lease revenue in effect as of December 31, 2020:

Year Ending December 31,	Operating Leases	Finance Leases	Future Minimum Rental Income
		(In millions)	
2021	$ 14.9	$ 4.7	$ 1.6
2022	13.0	4.4	1.6
2023	6.6	3.7	1.0
2024	3.0	3.8	0.9
2025	2.9	3.8	0.8
Thereafter	16.0	53.7	5.8
Total minimum rentals	56.4	74.1	11.7
Less: imputed interest	(7.3)	(28.5)	—
Total	$ 49.1	$ 45.6	$ 11.7

The Company also leases certain surplus facilities to third parties. The Company recorded lease income of $3.3 million, $7.5 million, and $6.4 million in 2020, 2019 and 2018, respectively, related to these arrangements, which have been included in net sales.

Note 5. Income Taxes

The Company files a consolidated U.S. federal income tax return with its wholly-owned subsidiaries. The following table presents the components of the Company's income tax provision:

	Year Ended December 31,		
	2020	2019	2018
		(In millions)	
Current			
U.S. federal	$ 4.8	$ 45.2	$ 35.1
State and local	(0.1)	11.5	11.5
	4.7	56.7	46.6
Deferred			
U.S. federal	26.1	(8.1)	0.9
State and local	11.7	2.3	3.8
	37.8	(5.8)	4.7
Income tax provision	$ 42.5	$ 50.9	$ 51.3

The following table presents the reconciling items between the income tax provision using the U.S. federal statutory rate and the Company's reported income tax provision.

	Year Ended December 31,		
	2020	2019	2018
		(In millions)	
Statutory U.S. federal income tax	$ 37.9	$ 40.3	$ 39.6
State income taxes, net of federal benefit	9.1	10.9	12.1
Reserve adjustments	1.2	3.9	2.7
Tax credits and special deductions	(4.6)	(2.7)	(3.7)
Nondeductible compensation	3.4	1.0	0.8
Stock-based compensation excess tax benefits	(4.4)	(2.3)	(0.4)
Other	(0.1)	(0.2)	0.2
Income tax provision	$ 42.5	$ 50.9	$ 51.3

The following table presents a reconciliation of the U.S. federal statutory income tax rate to the Company's effective income tax rate on earnings in percentages.

	Year Ended December 31,		
	2020	2019	2018
Statutory U.S. federal income tax rate	21.0 %	21.0 %	21.0 %
State income taxes, net of federal benefit	5.1	5.7	6.4
Reserve adjustments	0.7	2.0	1.4
Tax credits and special deductions	(2.6)	(1.4)	(2.0)
Nondeductible compensation	1.9	0.5	0.5
Stock-based compensation excess tax benefits	(2.4)	(1.2)	(0.2)
Other	(0.1)	(0.1)	0.1
Effective income tax rate	23.6 %	26.5 %	27.2 %

In 2020, the Company's effective tax rate was 23.6%. The Company's effective tax rate differed from the 21% statutory federal income tax rate primarily due to state income taxes, uncertain tax positions, and certain expenditures which are permanently not deductible for tax purposes, offset by R&D credits and excess tax benefits related to the Company's stock-based compensation.

In 2019, the Company's effective tax rate was 26.5%. The Company's effective tax rate differed from the 21% statutory federal income tax rate primarily due to state income taxes and uncertain tax positions, offset by R&D credits and excess tax benefits related to the Company's stock-based compensation.

In 2018, the Company's effective tax rate was 27.2%. The Company's effective tax rate differed from the 21% statutory federal income tax rate primarily due to state income taxes and unfavorable adjustments to uncertain tax positions partially offset by R&D credits.

The Company is routinely examined by domestic tax authorities. While it is difficult to predict the outcome or timing of a particular tax matter, the Company believes it has adequately provided reserves for any reasonable foreseeable outcome related to these matters.

In the second quarter of 2018, the Internal Revenue Service ("IRS") notified the Company that its federal income tax return for the year ended November 30, 2015, was selected for audit. In the fourth quarter of 2019, the IRS notified the Company that they completed the audit at the field level with no changes and forwarded the Company's case to the Joint Committee on Taxation ("JCT") for a secondary review. In the third quarter of 2020, the IRS closed the audit after the JCT completed its review without exception and refunded the $12.9 million due on the Company's income tax return and carryback claim.

The State of Florida notified the Company they would be opening an income tax audit for the years ended December 31, 2016, through December 31, 2018. The audit began in the first quarter of 2020 and there have been no adjustments noted as of December 31, 2020.

U.S. federal tax returns for the years ended December 31, 2016, through December 31, 2019, remain open to examination. Tax returns for the years ended November 30, 2015, through December 31, 2019, remain open to examination for state income tax jurisdictions.

The following table presents a reconciliation of unrecognized tax benefits:

	Year Ended December 31,		
	2020	2019	2018
		(In millions)	
Balances at beginning of year	$ 58.0	$ 7.4	$ 4.4
Increases based on tax positions in prior years	2.7	40.4	0.3
Decreases based on tax position in prior years	(51.5)	—	(0.1)
Increases based on tax positions in current year	5.6	10.4	3.5
Lapse of statute of limitations	(0.6)	(0.2)	(0.7)
Balances at end of year	$ 14.2	$ 58.0	$ 7.4

As of December 31, 2020, the total amount of unrecognized tax benefits was $14.2 million which would all affect the effective tax rate. The Company recognizes interest and penalties related to uncertain tax positions in income tax expense. As of December 31, 2020, the Company's accrued interest and penalties related to uncertain tax positions was $0.4 million. It is reasonably possible that a reduction of up to $0.8 million of unrecognized tax benefits and related interest and penalties may occur within the next 12 months as a result of the expiration of certain statutes of limitations.

Deferred Income Taxes

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of the Company's assets and liabilities for financial reporting and income tax purposes. Deferred tax assets and liabilities are determined by multiplying such differences by the enacted tax rates expected to be in effect when such differences are recovered or settled.

The following table presents the deferred tax assets and liabilities:

	As of December 31,	
	2020	2019
	(In millions)	
Deferred Tax Assets		
Accrued estimated costs	$ 48.4	$ 43.2
Basis difference in assets and liabilities	68.5	59.0
Operating lease liabilities	12.3	12.9
Tax losses and credit carryforwards	1.7	3.0
Net cumulative defined benefit pension plan losses	81.5	95.9
Retiree medical and life insurance benefits	6.0	6.2
Total deferred tax assets	218.4	220.2
Deferred Tax Liabilities		
Revenue recognition differences	116.7	77.7
Basis differences in intangible assets	9.2	8.6
ROU assets	11.4	12.0
Total deferred tax liabilities	137.3	98.3
Total net deferred tax assets	$ 81.1	$ 121.9

Realization of deferred tax assets is primarily dependent on generating sufficient taxable income in future periods. The Company believes it is more likely than not its deferred tax assets will be realized. Accordingly, no valuation allowance was recorded for 2020 and 2019.

The Company fully utilized its federal net operating loss carryforwards and income tax credits in 2018. The Company utilized substantially all of its state net operating loss carryforwards in 2019. The Company's California income tax credit carryovers are $1.0 million as of December 31, 2020, and have no expiration date.

Note 6. Long-Term Debt

	As of December 31,	
	2020	2019
	(In millions)	
Senior debt	$ 307.1	$ 326.3
Convertible senior notes	271.6	263.0
Finance leases (see Note 4)	45.6	47.7
Total debt, carrying amount	624.3	637.0
Less: Amounts due within one year	(299.9)	(284.7)
Total long-term debt, carrying amount	$ 324.4	$ 352.3

The following table presents as of December 31, 2020, the earlier of the Company's contractual debt principal maturities excluding finance lease obligations or the next debt redemption date that could be exercised at the option of the debt holder by year excluding finance lease obligations:

	Total	2021	2022	2023
		(In millions)		
Senior debt	$308.5	$ 26.3	$ 28.4	$ 253.8
Convertible senior notes	300.0	300.0	—	—
	$608.5	$ 326.3	$ 28.4	$ 253.8

See a summary of the minimum payments under finance lease obligations in Note 4.

The Company amortizes deferred financing costs over the estimated life of the related debt (a portion of which is classified as a contra liability). Amortization of deferred financing costs was $2.0 million, $1.9 million, and $1.8 million in 2020, 2019, and 2018, respectively.

a. Senior Debt:

	As of December 31,	
	2020	2019
	(In millions)	
Term loan, bearing interest at variable rates (rate of 1.90% as of December 31, 2020), maturing in September 2023	$ 308.5	$ 328.1
Unamortized deferred financing costs	(1.4)	(1.8)
Total senior debt	$ 307.1	$ 326.3

On September 20, 2018, the Company amended the senior secured Senior Credit Facility (the "Senior Credit Facility") to a $1.0 billion commitment with the lenders named therein and Bank of America Merrill Lynch as joint lead arranger and administrative agent. The Senior Credit Facility matures on September 20, 2023, and consists of (i) a $650.0 million revolving line of credit (the "Revolver") and (ii) a $350.0 million term loan (the "Term Loan"). The Senior Credit Facility amended the prior $750.0 million credit facility which was set to mature in June 2021 and is intended to provide available funds for the Company's short-term liquidity needs from time to time.

As of December 31, 2020, the Company had zero borrowings under the Revolver and had issued $27.6 million letters of credit.

The Term Loan and any borrowings under the Revolver bear interest at LIBOR plus an applicable margin ranging from 175 to 250 basis points based on the Company's leverage ratio (the "Consolidated Net Leverage Ratio") measured at the end of each quarter. In addition to interest, the Company must pay certain fees including (i) letter of credit fees ranging from 175 to 250 basis points per annum on the amount of issued but undrawn letters of credit and eurocurrency rate loans and (ii) commitment fees ranging from 30 to 45 basis points per annum on the unused portion of the Revolver.

The Term Loan amortized at a rate of 7.5% per annum as of December 31, 2020, and increasing to 10.0% per annum from December 31, 2022, to be paid in equal quarterly installments with any remaining amounts, along with outstanding borrowings under the Revolver, due on the maturity date. Outstanding borrowings under the Revolver and the Term Loan may be voluntarily repaid at any time, in whole or in part, without premium or penalty.

The Senior Credit Facility is secured by a first priority security interest in the Company's assets, subject to certain customary exceptions, as well as pledges of its equity interests in certain subsidiaries.

The Senior Credit Facility contains financial covenants requiring the Company to (i) maintain an interest coverage ratio (the "Consolidated Interest Coverage Ratio") of not less than 3.00 to 1.00 and (ii) maintain a Consolidated Net Leverage Ratio not to exceed (a) 3.75 to 1.00 from October 1, 2020, through September 30, 2021; and (b) 3.50 to 1.00 from October 1, 2021, thereafter, provided that the maximum leverage ratio for all periods shall be increased by 0.50 to 1.00 for two consecutive quarters after consummation of a qualified acquisition.

The Company may generally make certain investments, redeem debt subordinated to the Senior Credit Facility and make certain restricted payments (such as stock repurchases and dividends) if the Company's Consolidated Net Leverage Ratio does not exceed 3.25 to 1.00 pro forma for such transaction. The Company is otherwise subject to customary covenants including limitations on asset sales, incurrence of additional debt, and limitations on certain investments and restricted payments.

The Company was in compliance with its financial and non-financial covenants as of December 31, 2020.

b. Convertible Senior Notes:

	As of December 31,	
	2020	2019
	(In millions)	
Senior convertible notes, bearing interest at 2.25% per annum, interest payments due in June and December, maturing in December 2023	$ 300.0	$ 300.0
Unamortized discount and deferred financing costs	(28.4)	(37.0)
Total convertible senior notes	$ 271.6	$ 263.0

On December 14, 2016, the Company issued $300.0 million aggregate principal amount of 2¼% Notes in a private placement to qualified institutional buyers pursuant to Rule 144A under the Securities Act of 1933, as amended. The 2¼% Notes bear cash interest at a rate of 2.25% per annum on the principal amount of the 2¼% Notes from December 14, 2016, payable semi-annually in arrears on June 15 and December 15 of each year, beginning June 15, 2017. The 2¼% Notes will mature on December 15, 2023, subject to earlier repurchase, redemption or conversion in certain circumstances described below.

The 2¼% Notes are general unsecured senior obligations, which (i) rank senior in right of payment to all of the Company's existing and future senior indebtedness that is expressly subordinated in right of payment to the 2¼% Notes; (ii) rank equal in right of payment with all of the Company's existing and future unsecured indebtedness that is not so subordinated; (iii) rank effectively junior in right of payment to any of the Company's secured indebtedness to the extent of the value of the assets securing such indebtedness; and (iv) rank structurally junior to all indebtedness and other liabilities (including trade payables) of the Company’s subsidiaries.

The 2¼% Notes may be converted into cash, shares of the Company’s common stock or a combination thereof initially at a conversion rate of 38.4615 shares of common stock per $1,000 principal amount of 2¼% Notes (equivalent to a conversion price of approximately $26.00 per share of common stock), subject to adjustment from time to time as described in the indenture governing the 2¼% Notes. Holders may convert their 2¼% Notes at their option (i) at any time prior to the close of business on the business day immediately preceding September 15, 2023, under certain circumstances and (ii) at any time on or after September 15, 2023, until the close of business on the business day immediately preceding the maturity date, irrespective of such circumstances. In addition, if holders of the 2¼% Notes elect to convert their 2¼% Notes in connection with the occurrence of a make-whole fundamental change, as defined in the indenture governing the 2¼% Notes, such holders will be entitled to an increase in the conversion rate upon conversion in certain circumstances.

Holders may convert their 2¼% Notes at their option from January 1, 2021, through March 31, 2021, because the Company's closing stock price exceeded $33.80 for at least 20 days in the 30 day period prior to December 31, 2020. The Company has a stated intention to cash settle the principal amount of the 2¼% Notes with the conversion premium to be settled in common shares. Accordingly, the net balance of the 2¼% Notes of $271.6 million is classified as a current liability as of December 31, 2020.

As more fully described in the indenture governing the 2¼% Notes, the holders of the 2¼% Notes may surrender all or any portion of their 2¼% Notes for conversion at any time during any calendar quarter, (and only during such calendar quarter), if the last reported sale price of the Company's common stock for at least 20 trading days (whether or not consecutive) during the period of 30 consecutive trading days ending on the last trading day of the immediately preceding calendar quarter is greater than or equal to 130% ($33.80) of the conversion price on each applicable trading day.

The Company may redeem for cash all or any portion of the 2¼% Notes, at its option, on or after December 21, 2020, if the last reported sale price of the Company’s common stock has been at least 150% of the conversion price then in effect for at least 20 trading days (whether or not consecutive) during any 30 consecutive trading day period (including the last trading day of such period) ending on, and including, the trading day immediately preceding the date on which the Company provides notice of redemption at a redemption price equal to 100% of the principal amount of the 2¼% Notes to be redeemed, plus accrued and unpaid interest to, but excluding, the redemption date.

If a fundamental change, as defined in the indenture governing the 2¼% Notes, occurs prior to maturity, subject to certain conditions, holders of the 2¼% Notes will have the right to require the Company to repurchase all or part of their 2¼% Notes for cash at a fundamental change repurchase price equal to 100% of their principal amount, plus accrued and unpaid interest, if any, up to, but excluding, the fundamental change repurchase date.

The 2¼% Notes contain customary events of default, including, among other things, payment default, covenant default and certain cross-default provisions linked to the payment of other indebtedness of the Company or its significant subsidiaries.

Issuance of the 2¼% Notes generated proceeds of $294.2 million net of debt issuance costs, which were used to repurchase long-term debt and for working capital and other general corporate purposes.

On December 19, 2020, the Company's Board of Directors declared the one-time Pre-Closing Dividend in cash of $5.00 per share (including shares underlying the 2¼% Notes participating on an as-converted basis). See Note 1 for additional information.

The Company separately accounted for the liability and equity components of the 2¼% Notes. The initial liability component of the 2¼% Notes was valued based on the present value of the future cash flows using an estimated borrowing rate at the date of the issuance for similar debt instruments without the conversion feature, which equals the effective interest rate of 5.8% on the liability component. The equity component, or debt discount, was initially valued equal to the principal value of the 2¼% Notes, less the liability component. The debt discount is being amortized as a non-cash charge to interest expense over the period from the issuance date through December 15, 2023.

The debt issuance costs of $5.8 million incurred in connection with the issuance of the 2¼% Notes were capitalized and bifurcated into deferred financing costs of $4.7 million and equity issuance costs of $1.1 million. The deferred financing costs are being amortized to interest expense from the issuance date through December 15, 2023.

The following table summarizes the 2¼% Notes information (in millions, except years, percentages, conversion rate, and conversion price):

	As of December 31,	
	2020	2019
Carrying value, long-term	$ 271.6	$ 263.0
Unamortized discount and deferred financing costs	28.4	37.0
Principal amount	$ 300.0	$ 300.0
Carrying amount of equity component, net of equity issuance costs	$ 54.5	$ 54.5
Remaining amortization period (years)	3.0	4.0
Effective interest rate	5.8 %	5.8 %
Conversion rate (shares of common stock per $1,000 principal amount)	38.4615	38.4615
Conversion price (per share of common stock)	$ 26.00	$ 26.00

Based on the Company's closing stock price of $52.85 on December 31, 2020, the if-converted value of the 2¼% Notes exceeded the aggregate principal amount of the 2¼% Notes by $309.8 million.

The following table presents the interest expense components for the 2¼% Notes:

	Year Ended December 31,		
	2020	2019	2018
		(In millions)	
Interest expense-contractual interest	$ 6.8	$ 6.8	$ 6.8
Interest expense-amortization of debt discount	7.9	7.5	7.1
Interest expense-amortization of deferred financing costs	0.6	0.6	0.6

Note 7. Retirement Benefits

a. Plan Descriptions

Pension Benefits

The Company's defined benefit pension plan future benefit accrual was discontinued in 2009. As of December 31, 2020, the assets, projected benefit obligations, and unfunded pension obligation were $957.0 million, $1,381.5 million, and $424.5 million, respectively.

In 2021, the Company expects to make cash contributions of approximately $94 million to its tax-qualified defined benefit pension plan. The Company is generally able to recover contributions related to its tax-qualified defined benefit pension plan as allowable costs on its U.S. government contracts, but there are differences between when the Company contributes to its tax-qualified defined benefit pension plan under pension funding rules and when it is recoverable under Cost Accounting Standards ("CAS"). During 2020, the Company made cash contributions of $14.1 million and used $28.0 million of prepayment credits to fund its tax-qualified defined benefit pension plan.

The funded status of the Company's tax-qualified pension plan may be adversely affected by the investment experience of the plan's assets, by any changes in U.S. law and by changes in the statutory interest rates used by tax-qualified pension plans in the U.S. to calculate funding requirements. Accordingly, if the performance of the plan's assets does not meet assumptions, if there are changes to income tax regulations or other applicable law, or if other actuarial assumptions are modified, future contributions to the underfunded pension plans could be higher than the Company expects.

Medical and Life Insurance Benefits

The Company provides medical and life insurance benefits to certain eligible retired employees, with varied coverage by employee group. Generally, employees hired after January 1, 1997, are not eligible for retiree medical and life insurance benefits. The medical benefit plan provides for cost sharing between the Company and its retirees in the form of retiree contributions, deductibles, and coinsurance. Medical and life insurance benefit obligations are unfunded. Medical and life insurance benefit cash payments for eligible retired employees are recoverable from the Company’s U.S. government contracts.

Defined Contribution 401(k) Benefits

The Company sponsors a defined contribution 401(k) plan and participation in the plan is available to all employees. The Company makes matching contributions in cash equal to 100% of the first 3% of the participants’ compensation contributed and 50% of the next 3% of the compensation contributed. The cost of the 401(k) plan was $21.8 million, $21.4 million, and $22.2 million in 2020, 2019, and 2018, respectively.

b. Plan Results

The following table summarizes the balance sheet impact of the Company’s pension benefits and medical and life insurance benefits. Pension benefits include the consolidated tax-qualified plan and the unfunded non-qualified plan for benefits provided to employees beyond those provided by the Company's tax-qualified plan. Assets, benefit obligations, and the funded status of the plans were determined at December 31, 2020 and 2019.

	Pension Benefits		Medical and Life Insurance Benefits	
	As of December 31,			
	2020	2019	2020	2019
	(In millions)			
Change in fair value of assets:				
Fair value - beginning of year	$ 932.5	$ 894.8	$ —	$ —
Gain (loss) on assets	117.1	144.8	—	—
Employer contributions	15.6	1.4	2.8	3.1
Benefits paid (1)	(108.2)	(108.5)	(2.8)	(3.1)
Fair value - end of year	$ 957.0	$ 932.5	$ —	$ —
Change in benefit obligation:				
Benefit obligation - beginning of year	$ 1,349.8	$1,288.7	$ 25.9	$ 31.3
Interest cost	42.5	52.7	0.8	1.2
Actuarial losses (gains)	97.4	116.9	1.1	(3.5)
Benefits paid	(108.2)	(108.5)	(2.8)	(3.1)
Benefit obligation and accumulated benefit obligation - end of year	$ 1,381.5	$1,349.8	$ 25.0	$ 25.9
Funded status of the plans	$ (424.5)	$ (417.3)	$ (25.0)	$ (25.9)
Amounts recognized in the consolidated balance sheets:				
Postretirement medical and life insurance benefits, current	$ —	$ —	$ (3.5)	$ (3.6)
Postretirement medical and life insurance benefits, noncurrent	—	—	(21.5)	(22.3)
Pension liability, non-qualified current (component of other current liabilities)	(1.3)	(1.3)	—	—
Pension liability, non-qualified (component of other noncurrent liabilities)	(18.0)	(17.1)	—	—
Pension benefits, noncurrent	(405.2)	(398.9)	—	—
Net liability recognized in the consolidated balance sheets	$ (424.5)	$ (417.3)	$ (25.0)	$ (25.9)

(1) Benefits paid for medical and life insurance benefits are net of the Medicare Part D Subsidy of $0.1 million received in both 2020 and 2019.

The pension benefits obligation actuarial losses of $97.4 million in 2020 were primarily the result of a decrease in the discount rate used to determine the obligation due to lower market interest rates. The discount rate was 2.52% as of December 31, 2020, compared with 3.28% as of December 31, 2019. The pension obligation actuarial losses of $116.9 million in 2019 were primarily the result of a decrease in the discount rate used to determine the obligation due to lower market interest rates. The discount rate was 3.28% as of December 31, 2019, compared with 4.27% as of December 31, 2018.

The following table presents the components of retirement benefits expense (income):

	Pension Benefits			Medical and Life Insurance Benefits		
	Year Ended December 31,			Year Ended December 31,		
	2020	2019	2018	2020	2019	2018
	(In millions)					
Interest cost on benefit obligation	$ 42.5	$ 52.7	$ 49.7	$ 0.8	$ 1.2	$ 1.2
Assumed return on assets	(60.5)	(64.8)	(60.1)	—	—	—
Amortization of prior service costs (credits)	0.1	0.1	0.1	—	(0.2)	(0.2)
Amortization of net losses (gains)	57.4	40.9	70.7	(3.7)	(3.8)	(3.8)
	$ 39.5	$ 28.9	$ 60.4	$ (2.9)	$ (2.8)	$ (2.8)

The following table presents the actual return and rate of return on assets:

	Year Ended December 31,		
	2020	2019	2018
	(In millions, except rate of return)		
Actual gain (loss) on assets	$ 117.1	$ 144.8	$ (57.8)
Actual rate of return (loss) on assets	15.6 %	18.0 %	(5.2)%

Market conditions and interest rates significantly affect assets and liabilities of the pension plans. Pension accounting permits market gains and losses to be deferred and recognized over a period of years. This "smoothing" results in the creation of other accumulated income or loss which will be amortized to pension costs in future years. The accounting method the Company utilizes recognizes one-fifth of the unamortized gains and losses in the market-related value of pension assets and all other gains and losses including changes in the discount rate used to calculate the benefit obligation each year. Investment gains or losses for this purpose are the difference between the expected return and the actual return on the market-related value of assets which smoothes asset values over three years. Although the smoothing period mitigates some volatility in the calculation of annual retirement benefits expense, future expenses are impacted by changes in the market value of assets and changes in interest rates.

c. Plan Assumptions

The following table presents the assumptions, calculated based on a weighted-average, to determine the benefit obligations:

	Pension Benefits		Medical and Life Insurance Benefits	
	As of December 31,		As of December 31,	
	2020	2019	2020	2019
Discount rate	2.52 %	3.28 %	2.28 %	3.19 %
Discount rate (non-qualified plan)	2.51 %	3.30 %	*	*
Ultimate healthcare trend rate	*	*	4.50 %	4.50 %
Initial healthcare trend rate (pre 65/post 65)	*	*	6.50 %	5.50 %
Year ultimate rate attained (pre 65/post 65)	*	*	2028	2022

* Not applicable

The following table presents the assumptions, calculated based on a weighted-average, to determine the retirement benefits expense (income):

	Pension Benefits			Medical and Life Insurance Benefits		
	Year Ended December 31,			Year Ended December 31,		
	2020	2019	2018	2020	2019	2018
Discount rate	3.28 %	4.27 %	3.59 %	3.19 %	4.09 %	3.37 %
Discount rate (non-qualified plan)	3.30 %	4.27 %	3.62 %	*	*	*
Expected long-term rate of return on assets	7.00 %	7.00 %	7.00 %	*	*	*
Ultimate healthcare trend rate	*	*	*	4.50 %	4.50 %	5.00 %
Initial healthcare trend rate (pre 65/post 65)	*	*	*	5.50 %	6.00 %	6.50 %
Year ultimate rate attained (pre 65/post 65)	*	*	*	2022	2022	2021

* Not applicable

Certain actuarial assumptions, such as assumed discount rate, long-term rate of return, and assumed healthcare cost trend rates can have a significant effect on amounts reported for periodic cost of pension benefits and medical and life insurance benefits, as well as respective benefit obligation amounts. The assumed discount rate represents the market rate available for investments in high-quality fixed income instruments with maturities matched to the expected benefit payments for pension and medical and life insurance benefit plans.

The expected long-term rate of return on assets represents the rate of earnings expected in the funds invested, and funds to be invested, to provide for anticipated benefit payments to plan participants. The Company evaluated historical investment performance, current and expected asset allocation, and, with input from the Company’s external advisors, developed best estimates of future investment performance. Based on this analysis, the Company assumed a long-term expected rate of return of 7.0% in 2020.

The Company reviews external data and its own historical trends for healthcare costs to determine the healthcare cost trend rates for the medical benefit plans. For 2020 medical benefit obligations, the Company assumed a 6.5% annual rate of increase for pre and post 65 participants in the per capita cost of covered healthcare claims with the rate decreasing over seven years until reaching 4.5%.

d. Plan Assets and Investment Policy

The Company's investment policy is to maximize the total rate of return within a prudent risk framework, while maintaining adequate liquidity throughout volatile market cycles to meet benefit obligations when due. The Company's strategies employ active management and are generally focused on minimizing the permanent loss of capital. The Company's asset diversification objectives target a diversified portfolio that invests across the capital structure via strategies with complimentary risk and return profiles. Diversification is achieved by investing in various asset types, which may include cash, fixed income, equities, private assets, credit holdings, and future contracts. Further, the Company's strategy allows for diversification as to the types of investment vehicle structures, investment and redemption periods, and the number of investment managers used to carry out its strategy. Allocations between asset types, structures and managers may change as a result of changing market conditions, tactical investment opportunities, planned Company contributions, and cash obligations of the plan.

The following table presents the asset allocations by asset category:

	As of December 31,	
	2020	**2019**
Cash and cash equivalents	2 %	4 %
Equity securities	46	44
Fixed income	15	15
Registered investment companies	2	2
Private assets	11	12
Hedge funds	24	23
Total	100 %	100 %

The following tables present the fair value by asset category and by level:

	Total	**Quoted Prices in Active Markets for Identical Assets (Level 1)**	**Other Observable Inputs (Level 2)**	**Unobservable Inputs (Level 3)**
		(In millions)		
December 31, 2020				
Equity securities:				
Domestic equity securities	$ 406.3	$ 400.2	$ —	$ 6.1
International equity securities	37.0	37.0	—	—
Fixed income:				
Corporate debt securities	71.5	—	39.6	31.9
Asset-backed securities	28.7	—	28.7	—
U.S. government securities	41.4	—	41.4	—
Municipal bonds	0.6	—	0.6	—
Foreign bonds	0.5	—	0.5	—
Registered investment companies	16.4	16.4	—	—
Private assets	3.1	—	—	3.1
Total	605.5	$ 453.6	$ 110.8	$ 41.1
Investment measured at Net Asset Value ("NAV")				
Private assets	100.8			
Hedge funds	232.3			
Common/collective trusts ("CCTs")	36.2			
Total investments measured at NAV	369.3			
Receivables	0.8			
Payables	(18.6)			
Total assets	$ 957.0			

	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Other Observable Inputs (Level 2)	Unobservable Inputs (Level 3)
		(In millions)		
December 31, 2019				
Cash and cash equivalents	$ 0.1	$ 0.1	$ —	$ —
Equity securities:				
Domestic equity securities	372.6	368.4	—	4.2
International equity securities	33.5	33.5	—	—
Fixed income:				
Corporate debt securities	78.2	—	50.6	27.6
Asset-backed securities	26.3	—	26.3	—
U.S. government securities	31.3	—	31.3	—
Foreign bonds	0.8	—	0.8	—
Foreign exchange contracts	0.1	—	0.1	—
Registered investment companies	22.8	22.8	—	—
Private assets	5.4	—	—	5.4
Total	571.1	$ 424.8	$ 109.1	$ 37.2
Investment measured at NAV				
Private assets	106.3			
Hedge funds	218.7			
CCTs	50.0			
Total investments measured at NAV	375.0			
Receivables	6.5			
Payables	(20.1)			
Total assets	$ 932.5			

Below is a description of the significant investment strategies and valuation methodologies used for the investments measured at fair value, including the general classification of such investments pursuant to the valuation hierarchy. There have been no changes in the methodologies used at December 31, 2020 and 2019.

Cash and cash equivalents

Cash and cash equivalents are invested in money market funds or Short-Term Investment Funds ("STIFs"). Cash and cash equivalents invested in money market funds are classified as Level 1 investments. STIFs are measured at NAV and included in CCTs as a reconciling item to the fair value tables above.

Equity securities

Equity securities are invested broadly in U.S. and non-U.S. companies in a variety of sectors and market capitalizations. These investments are comprised of common stocks, CCTs, and other investment vehicles. Common stocks are stated at fair value as quoted on a recognized securities exchange and are valued at the last reported sales price on the last business day of the year and are classified as Level 1 investments. Equity securities that are invested in common stock of private companies and priced using unobservable inputs are classified as Level 3 investments. CCTs invested in equity securities are measured at NAV and included as a reconciling item to the fair value tables above.

Fixed income securities

Fixed income securities are invested in a variety of instruments, including, but not limited to, corporate debt securities, U.S. government securities, CCTs, asset-backed securities, municipal bonds, foreign bonds, and other investment vehicles. Corporate debt securities are invested in corporate bonds and term loans. Corporate bonds are valued at bid evaluations using observable and market-based inputs and are classified as Level 2 investments. Term loans are priced using unobservable inputs and are classified as Level 3 investments. Asset-backed securities, including government-backed mortgage securities, commercial mortgage-backed securities, auto receivable backed securities, and other asset-backed securities, are valued at bid evaluations and are classified as Level 2 investments. Municipal bonds are valued using pricing models maximizing the use of observable inputs for similar securities and are classified as Level 2 investments. Foreign bonds that are valued using pricing models maximizing the use of observable inputs for similar securities are classified as Level 2 investments. Foreign bonds that are priced using unobservable inputs are classified as Level 3 investments. The foreign bond classified as Level 3 investment had no value at both December 31, 2020 and 2019. CCTs invested in fixed income securities are measured at NAV and included as a reconciling item to the fair value tables above.

Registered investment companies

Registered investment companies are invested in corporate bonds, senior secured loans, and other fixed income. Registered investment companies are transacted at NAV published daily and are classified as Level 1 investments.

Private assets

Private assets are primarily limited partnerships that mainly invest in U.S. and non-U.S. leveraged buyout, venture capital and special situation strategies. Generally, the individual investments within the partnerships or funds are valued at public market, private market, or appraised value. Private assets are valued by investment managers using unobservable inputs such as extrapolated data, proprietary data, or indicative quotes. The majority of the private assets are valued at NAV and included as a reconciling item to the fair value tables above. Private assets for which there is no NAV are classified as Level 3 investments. Valuations of certain assets were based on the NAV or market value three months prior to the year-end. The Company made adjustments amounting to a decrease of $6.2 million and $17.4 million for 2020 and 2019, respectively, to account for changes since the valuation date.

Hedge funds

Hedge funds primarily consist of multi-strategy hedge funds that invest across a range of equity and debt securities in a variety of industry sectors. Hedge funds are valued at NAV calculated by investment managers using unobservable inputs such as extrapolated data, proprietary data, or indicative quotes and are included as a reconciling item to the fair value tables above. Valuations of certain assets were based on the NAV or market value three months prior to the year-end. The Company made adjustments amounting to a decrease of $4.5 million for 2019 to account for changes since the valuation date.

The following tables present the changes in the fair value of the Level 3 investments:

	December 31, 2019	Unrealized Gains (Losses)	Realized Gains	Purchases, Sales, and Settlements, net	December 31, 2020
			(In millions)		
Equity securities:					
Domestic equity securities	$ 4.2	$ 1.9	$ —	$ —	$ 6.1
Corporate debt securities	27.6	5.4	—	(1.1)	31.9
Private assets	5.4	1.7	1.3	(5.3)	3.1
Total	$ 37.2	$ 9.0	$ 1.3	$ (6.4)	$ 41.1

	December 31, 2018	Unrealized Gains (Losses)	Realized Gains	Purchases, Sales, and Settlements, net	December 31, 2019
			(In millions)		
Equity securities:					
Domestic equity securities	$ 4.9	$ (0.3)	$ 0.3	$ (0.7)	$ 4.2
International equity securities	0.1	(0.1)	—	—	—
Corporate debt securities	21.5	(0.1)	0.1	6.1	27.6
Private assets	1.3	0.2	0.1	3.8	5.4
Total	$ 27.8	$ (0.3)	$ 0.5	$ 9.2	$ 37.2

e. Benefit Payments

The following table presents estimated future benefit payments:

		Medical and Life Insurance Benefits		
Year Ending December 31,	**Pension Benefit Payments**	**Gross Benefit Payments**	**Medicare D Subsidy**	**Net Benefit Payments**
		(In millions)		
2021	$ 106.9	$ 3.5	$ 0.1	$ 3.4
2022	103.8	3.1	0.1	3.0
2023	100.6	2.8	0.1	2.7
2024	97.1	2.5	0.1	2.4
2025	93.4	2.2	0.1	2.1
Years 2026 - 2030	409.1	7.6	0.2	7.4

Note 8. Commitments and Contingencies

a. Legal Matters

The Company and its subsidiaries are subject to legal proceedings, including litigation in U.S. federal and state courts, which arise out of, and are incidental to, the ordinary course of the Company's on-going and historical businesses. The Company is also subject from time to time to governmental investigations by federal and state agencies. The Company cannot predict the outcome of such proceedings with any degree of certainty. Loss contingency provisions are recorded for probable losses at management's best estimate of a loss. When only a range of amounts can be reasonably estimated and no amount within the range is more likely than another, the low end of the range is recorded. These estimates are often initially developed substantially earlier than when the ultimate loss is known, and are refined each quarterly reporting period as additional information becomes available.

Merger-Related Litigation

On January 29, 2021, a lawsuit entitled *Richard Myers v. Aerojet Rocketdyne Holdings, Inc. et al*., Case No. 2:21-cv-00844, styled as a putative class action, was filed in the United States District Court for the Central District of California against the Company and the members of the Company's Board of Directors (the "Myers Action"). Also on January 29, 2021, a lawsuit entitled *Alexa Hiramitsu v. Aerojet Rocketdyne Holdings, Inc. et al*., Case No. 1:21-cv-00123, was filed in the United States District Court for the District of Delaware against the Company and the members of the Company's Board of Directors (the "Hiramitsu Action"). On February 1, 2021, a lawsuit entitled *Richard Feinhals v. Aerojet Rocketdyne Holdings, Inc. et al.*, Case No. 1:21-cv-00892, was filed in the United States District Court for the Southern District of New York against the Company and the members of the Company's Board of Directors (the "Feinhals Action"). On February 2, 2021, a lawsuit entitled *Shiva Stein v. Aerojet Rocketdyne Holdings, Inc. et al.*, Case No. 2:21-cv-00962, was filed in the United States District Court for the Central District of California (the "Stein Action"). On February 4, 2021, a lawsuit entitled *Mateo Clark v. Aerojet Rocketdyne Holdings, Inc. et al.*, Case No. 1:21-cv-00994, was filed in the United States District Court for the Southern District of New York against the Company and the members of the Company's Board of Directors (the "Clark Action"). Also on February 4, 2021, a lawsuit entitled *Guy Coffman v. Aerojet Rocketdyne Holdings, Inc. et al.*, Case No. 2:21-cv-01917, was filed in the United States District Court for the District of New Jersey against the Company and the members of the Company's Board of Directors (the "Coffman Action"). On February 15, 2021, a lawsuit entitled *Richard Wilhelm vs. Aerojet Rocketdyne Holdings, Inc. et al.,* Case No. 2:21-cv-01348, was filed in the U.S. District Court for the Central District of California, against the Company and members of the Company's Board of Directors (the "Wilhelm Action"). Also, on February 15, 2021, a lawsuit entitled *Hiten Patel vs. Aerojet Rocketdyne Holdings, Inc. et al.,* Case No. 2:21-cv-01349, was filed in the U.S. District Court for the Central District of California, against the Company and members of the Company's Board of Directors (the "Patel Action"). The Myers Action, the Hiramitsu Action, the Feinhals Action, the Stein Action, the Clark Action, the Coffman Action, the Wilhelm Action, and the Patel Action are collectively referred to as the "Actions." The Actions allege that the defendants violated Sections 14(a) (and Rule 14a-9 promulgated thereunder) and 20(a) of the Exchange Act by, among other things, omitting certain allegedly material information with respect to the Merger in the preliminary proxy statement filed by the Company on January 25, 2021. The Myers Action and the Feinhals Action also allege that the members of the Company's Board of Directors breached their fiduciary duties in connection with the Merger, and the Myers Action further alleges that the Company aided and abetted the Board of Directors' alleged breaches of fiduciary duties. The plaintiffs in the Actions seek, among other things, injunctive relief, money damages and the costs of the Actions, including reasonable attorneys' and experts' fees.

The Company and the members of its Board of Directors disagree with and intend to vigorously defend against the Actions. If the Actions are not resolved on a timely basis, the Actions could delay consummation of the Merger and result in additional costs to the Company, including costs associated with the indemnification of directors. Additional plaintiffs may file lawsuits against the Company and/or its directors and officers in connection with the Merger.

Asbestos Litigation

The Company has been, and continues to be, named as a defendant in lawsuits alleging personal injury or death and seeking various monetary damages due to exposure to asbestos in building materials, products, or in manufacturing operations. The majority of cases are pending in Illinois state courts. There were 99 asbestos cases pending as of December 31, 2020.

Given the lack of any significant consistency to claims (i.e., as to product, operational site, or other relevant assertions) filed against the Company, the Company is generally unable to make a reasonable estimate of the future costs of pending claims or unasserted claims. The aggregate settlement costs and legal and administrative fees associated with the Company's asbestos litigation has been immaterial for the last three years. As of December 31, 2020, the Company has accrued an immaterial amount related to pending claims.

United States ex. rel. Markus vs. Aerojet Rocketdyne Holdings

In the case captioned *United States ex. rel. Markus vs. Aerojet Rocketdyne Holdings, Inc. et al*., Case No. 2:15-CV-02245- WBS-AC, the Department of Justice completed its review of the case and declined to intervene in June 2018. The case was originally filed under seal in the U.S. District Court, Eastern District of California in September 2017 and alleged causes of action against the Company based on false claims, retaliation, and wrongful termination of employment seeking injunctive relief, civil penalties, and compensatory and punitive damages. In February 2019, the Company filed a Motion to Dismiss the False Claims Act ("FCA") counts of the complaint and a Motion to Compel Arbitration on the employment based claims. In May 2019, the court dismissed one count of the FCA claim, denied the motion to dismiss the remaining FCA counts, and moved the employment based claims to arbitration. The Company continues to vigorously contest the complaint's allegations and has not recorded any liability for this matter as of December 31, 2020.

b. Environmental Matters

The Company is involved in approximately 40 environmental matters under the Comprehensive Environmental Response Compensation and Liability Act, the Resource Conservation Recovery Act, and other federal, state, and local laws relating to soil and groundwater contamination, hazardous waste management activities, and other environmental matters at some of its current and former facilities. The Company is also involved in a number of remedial activities at third party sites, not owned by the Company, where it is designated a potentially responsible party ("PRP") by either the U.S. Environmental Protection Agency ("EPA") and/or a state agency. In many of these matters, the Company is involved with other PRPs. In some instances, the Company's liability and proportionate share of costs have not been determined largely due to uncertainties as to the nature and extent of site conditions and the Company's involvement. While government agencies frequently claim PRPs are jointly and severally liable at such sites, in the Company's experience, interim and final allocations of liability and costs are generally made based on relative contributions of waste or contamination. Anticipated costs associated with environmental remediation that are probable and estimable are accrued. In cases where a date to complete remedial activities at a particular site cannot be determined by reference to agreements or otherwise, the Company projects costs over an appropriate time period not exceeding 15 years. In such cases, generally the Company does not have the ability to reasonably estimate environmental remediation costs that are beyond this period. Factors that could result in changes to the Company's estimates include completion of current and future soil and groundwater investigations, new claims, future agency demands, discovery of more or less contamination than expected, discovery of new contaminants, modification of planned remedial actions, changes in estimated time required to remediate, new technologies, and changes in laws and regulations.

As of December 31, 2020, the aggregate range of these anticipated environmental costs was $300.6 million to $451.1 million and the accrued amount was $300.6 million. See Note 8(c) for a summary of the environmental reserve activity. Of these accrued liabilities, approximately 99% relates to the Company's U.S. government contracting business and a portion of this liability is recoverable. The significant environmental sites are discussed below. The balance of the accrued liabilities, which are not recoverable from the U.S. government, relate to other sites for which the Company's obligations are probable and estimable.

Sacramento, California Site

In 1989, a federal district court in California approved a Partial Consent Decree ("PCD") requiring Aerojet Rocketdyne, among other things, to conduct a Remedial Investigation and Feasibility Study to determine the nature and extent of impacts due to the release of chemicals from the Sacramento, California site, monitor the American River and offsite public water supply wells, operate Groundwater Extraction and Treatment facilities that collect groundwater at the site perimeter, and pay certain government oversight costs. The primary chemicals of concern for both on-site and off-site groundwater are trichloroethylene, perchlorate, and n-nitrosodimethylamine. A 2002 PCD revision (a) separated the Sacramento site into multiple operable units to allow quicker implementation of remedies for critical areas; (b) required the Company to guarantee up to $75 million (in addition to a prior $20 million guarantee) to assure that Aerojet Rocketdyne's Sacramento remediation activities are fully funded; and (c) removed approximately 2,600 acres of non-contaminated land from the EPA superfund designation.

Aerojet Rocketdyne is involved in various stages of soil and groundwater investigation, remedy selection, design, construction, operation and maintenance associated with the operable units, all of which are conducted under the direction and oversight of the EPA, including unilateral administrative orders, and the California Department of Toxic Substances Control ("DTSC") and Regional Water Quality Control Board, Central Valley Region ("RWQCB"). On September 22, 2016, the EPA completed its first five-year remedy review of the Sacramento superfund site. The five-year review required by statute and regulation applies to all remedial actions which result in hazardous substances above levels that allow unlimited use and unrestricted exposure. The Company is continuing to work with the EPA to address and remedy the remaining findings of the 2016 five-year remedy review and has established EPA approved action plans which include additional extraction wells, treatment, and monitoring. The Company's action plans and implementation will be evaluated at the next EPA five-year remedy review scheduled to occur in 2021.

The entire southern portion of the site known as Rio Del Oro was under state orders issued in the 1990s from DTSC and the RWQCB to investigate and remediate soil and groundwater contamination. In 2008, the DTSC released all but approximately 400 acres of the Rio Del Oro property from DTSC's environmental orders regarding soil contamination although the property remains subject to the RWQCB's orders to investigate and remediate groundwater environmental contamination emanating offsite from the property.

As of December 31, 2020, the estimated range of anticipated costs discussed above for the Sacramento, California site was $208.4 million to $331.4 million and the accrued amount was $208.4 million included as a component of the Company's environmental reserves. Expenditures associated with this matter are partially recoverable. See Note 8(c) below for further discussion on recoverability.

Baldwin Park Operable Unit

As a result of its former Azusa, California operations, in 1994, Aerojet Rocketdyne was named a PRP by the EPA in the area of the San Gabriel Valley Basin superfund site known as the BPOU. In 2002, Aerojet Rocketdyne, along with seven other PRPs (the "Cooperating Respondents") signed a project agreement with the San Gabriel Basin Water Quality Authority, the Main San Gabriel Basin Watermaster, and five water companies. The 2002 project agreement terminated in 2017 and the parties executed a project agreement which became operational on May 9, 2017. The agreement has a ten-year term and requires the Cooperating Respondents to fund through an escrow account the ongoing operation, maintenance, and administrative costs of certain treatment and water distribution facilities owned and operated by the water companies. There are also provisions in the project agreement for maintaining financial assurance.

Pursuant to the 2017 agreement with the remaining Cooperating Respondents, Aerojet Rocketdyne's current share of future BPOU costs will be approximately 74%.

As part of Aerojet Rocketdyne’s sale of its Electronics and Information Systems ("EIS") business to Northrop Grumman Corporation ("Northrop") in October 2001, the EPA approved a prospective purchaser agreement with Northrop to absolve it of a pre-closing liability for contamination caused by the Azusa, California operations, which liability remains with Aerojet Rocketdyne. As part of that agreement, the Company agreed to provide a $25 million guarantee of its obligations under the project agreement.

As of December 31, 2020, the estimated range of anticipated costs was $76.2 million to $91.9 million and the accrued amount was $76.2 million included as a component of the Company’s environmental reserves. Expenditures associated with this matter are partially recoverable. See Note 8(c) below for further discussion on recoverability.

c. Environmental Reserves and Estimated Recoveries

Environmental Reserves

The Company reviews on a quarterly basis estimated future remediation costs and has an established practice of estimating environmental remediation costs over a fifteen year period, except for those environmental remediation costs with a specific contractual term. Environmental liabilities at the BPOU site are currently estimated through the term of the project agreement, which expires in May 2027. As the period for which estimated environmental remediation costs lengthens, the reliability of such estimates decreases. These estimates consider the investigative work and analysis of engineers, outside environmental consultants, and the advice of legal staff regarding the status and anticipated results of various administrative and legal proceedings. In most cases, only a range of reasonably possible costs can be estimated. In establishing the Company’s reserves, the most probable estimate is used when determinable; otherwise, the minimum amount is used when no single amount in the range is more probable. Accordingly, such estimates can change as the Company periodically evaluates and revises these estimates as new information becomes available. The Company cannot predict whether new information gained as projects progress will affect the estimated liability accrued. The timing of payment for estimated future environmental costs is influenced by a number of factors, such as the regulatory approval process and the time required designing, constructing, and implementing the remedy.

The following table summarizes the Company’s environmental reserve activity:

	Aerojet Rocketdyne-Sacramento	Aerojet Rocketdyne-BPOU	Other Aerojet Rocketdyne Sites	Total Aerojet Rocketdyne	Other	Total Environmental Reserve
			(In millions)			
December 31, 2017	$ 206.5	$ 116.4	$ 13.7	$ 336.6	$ 4.8	$ 341.4
Additions	20.1	2.3	0.6	23.0	0.3	23.3
Expenditures	(19.2)	(14.9)	(1.9)	(36.0)	(0.8)	(36.8)
December 31, 2018	207.4	103.8	12.4	323.6	4.3	327.9
Additions	17.0	(0.8)	0.3	16.5	0.2	16.7
Expenditures	(20.8)	(13.4)	(0.9)	(35.1)	(0.3)	(35.4)
December 31, 2019	203.6	89.6	11.8	305.0	4.2	309.2
Additions	30.9	(0.2)	—	30.7	1.7	32.4
Expenditures	(26.1)	(13.2)	(1.2)	(40.5)	(0.5)	(41.0)
December 31, 2020	$ 208.4	$ 76.2	$ 10.6	$ 295.2	$ 5.4	$ 300.6

The effect of the final resolution of environmental matters and the Company’s obligations for environmental remediation and compliance cannot be accurately predicted due to the uncertainty concerning both the amount and timing of future expenditures and due to regulatory or technological changes. The Company continues its efforts to mitigate past and future costs through pursuit of claims for recoveries from insurance coverage and other PRPs and continued investigation of new and more cost effective remediation alternatives and associated technologies.

As part of the acquisition of the Atlantic Research Corporation ("ARC") propulsion business in 2003, Aerojet Rocketdyne entered into an agreement with ARC pursuant to which Aerojet Rocketdyne was responsible for up to $20.0 million of costs ("Pre-Close Environmental Costs") associated with environmental issues that arose prior to Aerojet Rocketdyne’s acquisition of the ARC propulsion business. ARC is responsible for any cleanup costs relating to the ARC acquired businesses in excess of $20.0 million. Pursuant to a separate agreement with the U.S. government which was entered into prior to the completion of the ARC acquisition, these costs are recovered through the establishment of prices for Aerojet Rocketdyne’s products and services sold to the U.S. government. The Company reached the $20.0 million cap on cleanup costs in the three months ended March 31, 2017, and expects that additional costs will be incurred due to contamination existing at the time of the acquisition and still requiring remediation and monitoring. On May 6, 2016, ARC informed Aerojet Rocketdyne that it was disputing certain costs that Aerojet Rocketdyne attributed to the $20.0 million Pre-Close Environmental Costs ("ARC Claim"). The settlement resolved past costs and established that the $20.0 million cap had been reached, ARC became financially responsible subject to an allocation of future cleanup costs related to the Company’s operation of the Open Burn Unit from 2003-2009, and ARC assumed management for the ongoing remediation as required by the 2003 acquisition agreement.

Estimated Recoveries

On January 12, 1999, Aerojet Rocketdyne and the U.S. government reached a settlement agreement ("Global Settlement") covering environmental costs associated with the Company's Sacramento site and its former Azusa site. Pursuant to the Global Settlement, the Company can recover up to 88% of its environmental remediation costs through the establishment of prices for Aerojet Rocketdyne's products and services sold to the U.S. government. Additionally, in conjunction with the sale of the EIS business in 2001, Aerojet Rocketdyne entered into an agreement with Northrop (the "Northrop Agreement") whereby Aerojet Rocketdyne is reimbursed by Northrop for a portion of environmental expenditures eligible for recovery under the Global Settlement, subject to an annual billing limitation of $6.0 million and a cumulative limitation of $189.7 million. The following table summarizes the Northrop Agreement activity (in millions):

Total reimbursable costs under the Northrop Agreement	$	189.7
Amount reimbursed to the Company through December 31, 2020		(143.2)
Receivable from Northrop included in the balance sheet at December 31, 2020	$	46.5

The cumulative expenditure limitation of $189.7 million under the Northrop Agreement was reached in June 2017. At that time, the Company was uncertain of the allowability and allocability of additional expenditures above that cumulative limitation and therefore did not recognize a recoverable asset for such amounts. In the third quarter of 2018, the Company and the U.S. government reached a determination that these expenditures are reimbursable under the Global Settlement and therefore recorded a one-time benefit of $43.0 million to recognize the recoverability of environmental expenditures at a rate of 88%.

Environmental remediation costs are primarily incurred by the Company's Aerospace and Defense segment, and certain of these costs are recoverable from the Company's contracts with the U.S. government. The Company currently estimates approximately 12% of its future Aerospace and Defense segment environmental remediation costs will not likely be reimbursable and are expensed. Allowable environmental remediation costs are charged to the Company’s contracts with the U.S. government as the costs are incurred. Because these costs are recovered through forward-pricing arrangements, the ability of Aerojet Rocketdyne to continue recovering these costs from the U.S. government depends on Aerojet Rocketdyne’s sustained business volume from U.S. government contracts and programs.

While the Company continues to seek an arrangement with the U.S. government to recover environmental expenditures in excess of the reimbursement ceiling identified in the Global Settlement, there can be no assurances that such a recovery will be obtained, or if not obtained, that such unreimbursed environmental expenditures will not have a materially adverse effect on the Company’s operating results, financial condition, and/or cash flows.

Environmental reserves and estimated recoveries impact on the consolidated statements of operations

The following table summarizes the financial information for the impact of environmental reserves and recoveries to the consolidated statements of operations:

	Year Ended December 31,		
	2020	**2019**	**2018**
		(In millions)	
Expense (benefit) to consolidated statement of operations	$ 4.3	$ 2.1	$ (36.9)

d. Arrangements with Off-Balance Sheet Risk

As of December 31, 2020, arrangements with off-balance sheet risk consisted of:

- $27.6 million in outstanding commercial letters of credit, the majority of which may be renewed, primarily to collateralize obligations for environmental remediation and insurance coverage.
- $53.5 million in outstanding surety bonds to primarily satisfy indemnification obligations for environmental remediation coverage.
- Up to $120.0 million aggregate in guarantees by the Company of Aerojet Rocketdyne’s obligations to U.S. government agencies for environmental remediation activities.
- Guarantees, jointly and severally, by the Company’s material domestic subsidiaries of their obligations under the Senior Credit Facility.

In addition to the items discussed above, the Company has and will from time to time enter into certain types of contracts that require the Company to indemnify parties against potential third-party and other claims. These contracts primarily relate to: (i) divestiture agreements, under which the Company may provide customary indemnification to purchasers of its businesses or assets including, for example, claims arising from the operation of the businesses prior to disposition, and liability to investigate and remediate environmental contamination existing prior to disposition; (ii) certain real estate leases, under which the Company may be required to indemnify property owners for claims arising from the use of the applicable premises; and (iii) certain agreements with officers and directors, under which the Company may be required to indemnify such persons for liabilities arising out of their relationship with the Company. The terms of such obligations vary. Generally, a maximum obligation is not explicitly stated.

Additionally, the Company has open purchase orders and other commitments to suppliers, subcontractors, and other outsourcing partners for equipment, materials, and supplies in the normal course of business. These amounts are based on volumes consistent with anticipated requirements to fulfill purchase orders or contracts for product deliveries received, or expected to be received, from customers. A substantial portion of these amounts are recoverable through the Company's contracts with the U.S. government.

The Company provides product warranties in conjunction with certain product sales. The majority of the Company's warranties are a one-year standard warranty for parts, workmanship, and compliance with specifications. On occasion, the Company has made commitments beyond the standard warranty obligation. While the Company has contracts with warranty provisions, there is not a history of any significant warranty claims experience. A reserve for warranty exposure is made on a product by product basis when it is both estimable and probable. These costs are included in the program's estimate at completion and are expensed in accordance with the Company's revenue recognition methodology as allowed under GAAP for that particular contract.

Note 9. Stockholders' Equity

a. Preferred Stock

As of December 31, 2020 and 2019, 15.0 million shares of preferred stock were authorized and none were issued or outstanding.

b. Common Stock

As of December 31, 2020, the Company had 150.0 million authorized shares of common stock, par value $0.10 per share, of which 76.8 million shares were issued and outstanding, and 21.5 million shares were reserved for future issuance for the exercise of stock options (seven year contractual life) and restricted stock (no maximum contractual life), payment of awards under stock-based compensation plans, and conversion of the Company's convertible debt.

c. Treasury Stock

As of December 31, 2020 and 2019, the Company had 2.1 million and 0.8 million, respectively, of its common shares classified as treasury stock. During 2020, the Company repurchased 1.3 million of its common shares at a cost of $51.7 million. On September 10, 2018, the Company made a discretionary contribution of 2.7 million treasury stock, or $95.0 million, of its common stock to the Aerojet Rocketdyne Master Retirement Trust, which is a trust maintained in connection with the Aerojet Rocketdyne (GenCorp) Consolidated Pension Plan. Treasury stock is stated at cost (first-in, first-out basis). The Company reflects stock repurchases in its financial statements on a "settlement" basis

d. Dividends

On December 19, 2020, the Company's Board of Directors declared the one-time Pre-Closing Dividend in cash of $5.00 per share (including shares underlying the 2¼% Notes participating on an as-converted basis). The Pre-Closing Dividend is payable on March 24, 2021, to the holders of the Company's shares and 2¼% Notes as of the close of business on March 10, 2021.

e. Stock-based Compensation

The following table summarizes stock-based compensation expense by type of award:

	Year Ended December 31,		
	2020	2019	2018
		(In millions)	
SARs	$ 8.1	$ 11.4	$ 6.2
Restricted stock and restricted stock units, service based	8.6	5.2	4.5
Restricted stock and restricted stock units, performance based	12.6	9.4	9.1
Employee stock purchase plan ("ESPP")	1.1	0.9	0.6
Stock options	1.0	0.4	0.1
Total stock-based compensation expense	$ 31.4	$ 27.3	$ 20.5

Stock Appreciation Rights: As of December 31, 2020, a total of 0.9 million SARs were outstanding. SARs granted to employees generally vest in one-third increments at one year, two years, and three years from the date of grant and have a seven year contractual life. SARs granted to directors of the Company typically vest over a one year service period (half after six months and half after one year) and have a seven year contractual life. These awards are similar to the Company's employee stock options, but are settled in cash rather than in shares of common stock, and are classified as liability awards. Compensation cost for these awards is determined using a fair-value method and remeasured at each reporting date until the date of settlement.

The following table summarizes the status of the Company's SARs:

	SARs (In millions)	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (years)	Aggregate Intrinsic Value (In millions)
Outstanding at December 31, 2019	1.2	$ 27.32		
Exercised	(0.2)	19.97		
Canceled	(0.1)	31.46		
Outstanding at December 31, 2020	0.9	$ 29.09	4.2	$ 21.0
Exercisable at December 31, 2020	0.6	$ 28.27	4.0	$ 15.3
Expected to vest at December 31, 2020	0.3	$ 31.01	4.5	$ 5.7

The weighted average grant date fair value for SARs granted in 2019 and 2018 was $37.26 and $27.53, respectively. The total intrinsic value for SARs liabilities paid in 2020, 2019, and 2018 was $7.6 million, $4.3 million, and $3.5 million, respectively. As of December 31, 2020, there was $0.8 million of unrecognized stock-based compensation related to nonvested SARs that is expected to be recognized over an estimated weighted-average amortization period of eleven months.

Restricted Stock, service-based: As of December 31, 2020, a total of 0.2 million shares of service-based restricted stock were outstanding which vest based on years of service. Restricted shares are granted to employees and directors of the Company. The fair value was based on the closing market price of the Company's common stock on the date of award and is being amortized on a straight line basis over the service period.

The following table summarizes the status of the Company's service-based restricted stock:

	Service Based Restricted Stock (In millions)	Weighted Average Grant Date Fair Value
Outstanding at December 31, 2019	0.3	$ 36.33
Exercised	(0.1)	34.81
Outstanding and expected to vest at December 31, 2020	0.2	$ 39.90

As of December 31, 2020, there was $3.9 million of unrecognized stock-based compensation related to nonvested service-based restricted stock that is expected to be recognized over an estimated weighted-average amortization period of seventeen months. At December 31, 2020, the intrinsic value of the service-based restricted stock outstanding and expected to vest was $9.4 million. The weighted average grant date fair values for service-based restricted stock granted in 2019 and 2018 was $40.70 and $29.74, respectively.

Restricted Stock Units, service-based: As of December 31, 2020, a total of 0.1 million shares of service-based restricted stock units were outstanding which vest based on years of service. Restricted stock units are granted to employees of the Company. The fair value was based on the closing market price of the Company's common stock on the date of award and is being amortized on a straight line basis over the service period.

The following table summarizes the status of the Company's service-based restricted stock units:

	Service Based Restricted Stock Units (In millions)	Weighted Average Grant Date Fair Value
Outstanding at December 31, 2019	—	$ —
Granted	0.1	46.00
Outstanding and expected to vest at December 31, 2020	0.1	$ 46.00

As of December 31, 2020, there was $3.5 million of unrecognized stock-based compensation related to nonvested service-based restricted stock units that is expected to be recognized over an estimated weighted-average amortization period of thirty months. At December 31, 2020, the intrinsic value of the service-based restricted stock units outstanding and expected to vest was $5.1 million.

Restricted Stock, performance-based Company metrics: As of December 31, 2020, a total of 0.5 million shares of performance-based restricted shares were outstanding. The performance-based restricted stock vests if the Company meets various operations and earnings targets set by the Organization & Compensation Committee of the Board of Directors. The fair value was based on the closing market price of the Company's common stock on the date of award and is being amortized over the estimated service period to achieve the operations and earnings targets.

The following table summarizes the status of the Company's performance-based restricted stock:

	Performance Based Restricted Stock (In millions)	Weighted Average Grant Date Fair Value
Outstanding at December 31, 2019	1.0	$ 29.41
Exercised	(0.4)	25.01
Canceled	(0.1)	29.00
Outstanding at December 31, 2020	0.5	$ 36.59
Expected to vest at December 31, 2020	0.4	$ 35.52

As of December 31, 2020, there was $4.4 million of unrecognized stock-based compensation related to nonvested performance-based restricted stock that is expected to be recognized over an estimated weighted-average amortization period of fourteen months. At December 31, 2020, the intrinsic value of the performance-based restricted stock outstanding was $26.6 million and the intrinsic value of the performance-based restricted stock expected to vest was $21.5 million. The weighted average grant date fair values for performance-based restricted stock granted in 2019 and 2018 was $37.27 and $26.36, respectively.

Restricted Stock Units, performance-based Company metrics: As of December 31, 2020, a total of 0.4 million shares of performance-based restricted stock units were outstanding. The performance-based restricted stock units vest if the Company meets various operations and earnings targets set by the Organization & Compensation Committee of the Board of Directors. The fair value was based on the closing market price of the Company's common stock on the date of award and is being amortized over the estimated service period to achieve the operations and earnings targets.

The following table summarizes the status of the Company's performance-based restricted stock units:

	Performance Based Restricted Stock Units (In millions)	Weighted Average Grant Date Fair Value
Outstanding at December 31, 2019	—	$ —
Granted	0.4	50.00
Outstanding at December 31, 2020	0.4	$ 50.00
Expected to vest at December 31, 2020	0.2	$ 50.00

As of December 31, 2020, there was $6.2 million of unrecognized stock-based compensation related to nonvested performance-based restricted stock units that are expected to be recognized over an estimated weighted-average amortization period of twenty-six months. At December 31, 2020, the intrinsic value of the performance-based restricted stock units outstanding was $19.7 million and the intrinsic value of the performance-based restricted stock expected to vest was $9.8 million.

Employee Stock Purchase Plan: The ESPP enables eligible employees the opportunity to purchase the Company's common stock at a price not less than 85% of the fair market value of the common stock on the last day of the respective offering period. A maximum of 1.5 million shares are authorized for issuance. During 2020, 0.2 million shares were issued under the ESPP at an average price of $45.65. During 2019, 0.1 million shares were issued under the ESPP at an average price of $45.25. During 2018, 0.1 million shares were issued under the ESPP at an average price of $32.11.

Stock Options: As of December 31, 2020, there were no stock options outstanding. The following table summarizes the status of the Company's stock options:

	Stock Options (In millions)	Weighted Average Exercise Price
Outstanding at December 31, 2019	0.4	$ 23.11
Exercised and Cancelled	(0.4)	23.11
Outstanding at December 31, 2020	—	$ —

The total intrinsic value for options exercised in 2020, 2019, and 2018 was $11.0 million, $0.8 million, and $0.9 million, respectively. The fair value of the stock option grant in 2019 was estimated using a Black-Scholes model with an expected life of seven years, volatility of 33.48%, and a risk-free rate of 2.62%. The Company did not grant stock options in 2020 and 2018.

Performance Common Shares: In February 2018, the Company granted senior executives 0.1 million performance common shares that vest according to the attainment of share prices ranging from $34.00 per share to $42.00 per share of the Company's stock. The performance common shares were valued at a weighted average price of $18.67 using a Monte Carlo model. The Company recognized the grant-date fair value of these awards as stock-based compensation expense ratably over the estimated vesting period based on the number of awards expected to vest at each reporting date or earlier if the market condition was satisfied. All of the performance based common shares have vested as a result of the attainment of the share prices ranging from $34.00 per share to $42.00 per share of the Company's stock. The following table presents the weighted average assumptions used to value the awards for 2018:

	Performance-based common shares
Expected life (in years)	1.25
Volatility	31.52 %
Risk-free interest rate	2.65 %
Dividend yield	— %

Performance Stock Units: In March 2020, the Company granted the Executive Chairman 0.1 million performance stock units that vest according to the attainment of share prices ranging from $57.80 per share to $67.85 per share of the Company's stock. The performance stock units were valued at a weighted average price of $37.12 using a Monte Carlo model. The Company recognized the grant-date fair value of these awards as stock-based compensation expense ratably over the estimated vesting period based on the number of awards expected to vest at each reporting date or earlier if the market condition was satisfied. As of December 31, 2020, there was $0.1 million of unrecognized stock-based compensation related to nonvested performance stock units that are expected to be recognized over an estimated weighted-average amortization period of thirty-six months. At December 31, 2020, the intrinsic value and expected to vest of the performance stock units outstanding was $3.8 million. The following table presents the weighted average assumptions used to value the units for 2020:

Expected life (in years)	0.67
Volatility	35.41 %
Risk-free interest rate	0.72 %
Dividend yield	— %

Valuation Assumptions: The following table presents the weighted average assumptions used to value the SARs:

	Year Ended December 31,		
	2020	2019	2018
Expected life (in years)	0.7	4.9	4.9
Volatility	48.30 %	34.79 %	35.10 %
Risk-free interest rate	0.11 %	1.69 %	2.51 %
Dividend yield	— %	— %	— %

Expected Term: The Company's expected term represents the period that the Company's stock-based awards are expected to be outstanding and was determined based on historical experience of similar awards, giving consideration to the contractual terms of the stock-based awards and vesting schedules.

Expected Volatility: The fair value of stock-based payments was determined using the Black-Scholes model with a volatility factor based on the Company's historical stock prices.

Risk-Free Interest Rate: The Company bases the risk-free interest rate used in the Black-Scholes model on the implied yield currently available on U.S. Treasury zero-coupon issues with an equivalent remaining term.

Note 10. Operating Segments and Related Disclosures

The Company's operations are organized into two operating segments based on different products and customer bases: Aerospace and Defense, and Real Estate. Sales to significant customers and other concentrations information is presented in Note 1. The accounting policies of the operating segments are the same as those presented in the summary of significant accounting policies in Note 1.

The Company evaluates its operating segments based on several factors, of which the primary financial measure is segment performance. Segment performance represents net sales less applicable costs, expenses and unusual items relating to the segment operations. Segment performance excludes corporate income and expenses, unusual items not related to the segment operations, interest expense, interest income, and income taxes.

The following table presents selected financial information for each reportable segment:

	Year Ended December 31,		
	2020	2019	2018
	(In millions)		
Net Sales:			
Aerospace and Defense	$ 2,069.4	$ 1,974.0	$ 1,888.1
Real Estate	3.3	7.5	7.8
Total Net Sales	$ 2,072.7	$ 1,981.5	$ 1,895.9
Segment Performance:			
Aerospace and Defense	$ 264.2	$ 249.1	$ 233.4
Environmental remediation provision adjustments	(2.7)	(1.9)	37.2
GAAP/CAS retirement benefits expense difference	14.7	22.4	(6.0)
Unusual items	(0.6)	(0.3)	—
Aerospace and Defense Total	275.6	269.3	264.6
Real Estate	(1.8)	2.1	2.8
Total Segment Performance	$ 273.8	$ 271.4	$ 267.4
Reconciliation of segment performance to income before income taxes:			
Segment performance	$ 273.8	$ 271.4	$ 267.4
Interest expense	(30.1)	(35.7)	(34.4)
Interest income	6.3	15.5	10.0
Stock-based compensation	(31.4)	(27.3)	(20.5)
Corporate retirement benefits expense	(7.5)	(7.2)	(13.4)
Corporate and other	(23.4)	(24.8)	(20.3)
Unusual items	(7.5)	—	(0.2)
Income before income taxes	$ 180.2	$ 191.9	$ 188.6
Aerospace and Defense	$ 54.6	$ 42.9	$ 42.2
Real Estate	—	—	—
Corporate	—	—	1.0
Capital Expenditures	$ 54.6	$ 42.9	$ 43.2
Aerospace and Defense	$ 64.2	$ 72.9	$ 71.1
Real Estate	0.8	1.2	0.9
Corporate	0.3	0.4	0.3
Depreciation and Amortization	$ 65.3	$ 74.5	$ 72.3

	As of December 31,	
	2020	2019
	(In millions)	
Assets:		
Aerospace and Defense	$ 1,484.9	$ 1,515.1
Real Estate	133.9	132.8
Operating segment assets	1,618.8	1,647.9
Corporate	1,281.1	1,059.9
Total Assets	$ 2,899.9	$ 2,707.8

Note 11. Cost Reduction Plans

During 2015, the Company initiated the first phase ("Phase I") of the competitive improvement program (the "CIP") comprised of activities and initiatives aimed at reducing costs in order for the Company to continue to compete successfully. Phase I was comprised of three major components: (i) facilities optimization and footprint reduction; (ii) product affordability; and (iii) reduced administrative and overhead costs. In 2017, the Board of Directors approved the second phase ("Phase II") of the CIP. Pursuant to Phase II, the Company expanded its CIP and further consolidated its Sacramento, California, and Gainesville, Virginia sites, while it centralized and expanded its existing presence in Huntsville, Alabama. The Company estimates the restructuring and related costs will be $185.0 million (including approximately $53.2 million of capital expenditures). The Company has incurred $182.8 million of such costs through December 31, 2020, including $52.9 million in capital expenditures.

The Company's current estimate of $185.0 million has decreased from December 31, 2019, primarily due to continued efficiencies in program transitions and lower than expected employee costs. The following table summarizes the Company's severance and retention liabilities related to CIP activity:

	Severance	Retention	Total
		(In millions)	
December 31, 2017	$ 30.0	$ 3.4	$ 33.4
Accrual	0.2	5.7	5.9
Payments	(12.1)	(4.0)	(16.1)
December 31, 2018	18.1	5.1	23.2
Accrual	—	5.5	5.5
Payments	(12.9)	(6.0)	(18.9)
December 31, 2019	5.2	4.6	9.8
Accrual/other	(1.0)	1.8	0.8
Payments	(3.3)	(5.5)	(8.8)
December 31, 2020	$ 0.9	$ 0.9	$ 1.8

The costs associated with the CIP are included as a component of the Company’s U.S. government forward-pricing rates, and therefore, are recovered through the pricing of the Company’s products and services to the U.S. government.

Note 12. Quarterly Financial Data (Unaudited)

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
	(In millions, except per share amounts)			
2020				
Net sales	$ 476.1	$ 512.4	$ 527.7	$ 556.5
Cost of sales (exclusive of items shown separately on Statement of Operations)	394.9	415.2	441.6	449.6
Income before income taxes	42.7	53.5	40.7	43.3
Net income	31.4	39.2	31.7	35.4
Basic EPS	0.40	0.50	0.40	0.46
Diluted EPS	0.37	0.47	0.38	0.43

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
	(In millions, except per share amounts)			
2019				
Net sales	$ 491.7	$ 485.0	$ 481.8	$ 523.0
Cost of sales (exclusive of items shown separately on Statement of Operations)	397.6	379.6	392.9	443.5
Income before income taxes	51.8	59.4	43.5	37.2
Net income	38.7	44.1	32.9	25.3
Basic EPS	0.49	0.56	0.42	0.32
Diluted EPS	0.47	0.54	0.39	0.30

Note 13. Unusual Items

The following table presents total unusual items, comprised of a component of other expense (income), net in the consolidated statements of operations:

	Year Ended December 31,		
	2020	2019	2018
		(In millions)	
Aerospace and Defense:			
Merger costs	$ 0.2	$ —	$ —
Legal matter	0.4	—	—
Acquisition costs	—	0.3	—
Aerospace and defense unusual items	0.6	0.3	—
Corporate:			
Merger costs	7.5	—	—
Loss on bank amendment	—	—	0.2
Corporate unusual items	7.5	—	0.2
Total unusual items	$ 8.1	$ 0.3	$ 0.2

In 2020, the Company recorded a reserve of $0.4 million for a legal related matter.

In 2020, the Company recorded $7.7 million of costs associated with the Merger with Lockheed Martin. See Note 1(a) for additional information. The components of the Merger costs are as follows (in millions):

Legal	$ 3.9
Consulting and other professional costs	3.4
Internal labor	0.4
	$ 7.7

Note 14. Adoption of Revenue Recognition Guidance

The Company adopted the new revenue recognition guidance effective January 1, 2018, using the modified retrospective method, with the cumulative effect recognized as of January 1, 2018. The primary impact of the new guidance was a change in the timing of revenue recognition on certain long-term contracts in the Company's Aerospace and Defense segment. The adoption of the new revenue recognition guidance did not impact revenue recognized within the Company's Real Estate segment. The new guidance does not change the total sales or operating income on the related customer contracts, only the timing of when sales and operating income are recognized. Under this new guidance, the Company discontinued the use of the unit-of-delivery revenue recognition method on certain customer contracts and re-measured the performance obligations using the cost-to-cost method. The cumulative favorable impact of the adoption was $37.6 million of net income which was recorded to stockholders' equity.

The following tables summarize the effect of adoption of the new revenue recognition standard on the Company's consolidated financial statements for 2018.

Condensed Consolidated Statement of Operations

	Year Ended December 31, 2018		
	As Reported	Effect of Adoption	Amounts Excluding Effect of Adoption
	(In millions, except per share amounts)		
Net sales	$ 1,895.9	$ 14.1	$ 1,910.0
Operating costs and expenses:			
Cost of sales (exclusive of items shown separately below)	1,549.4	27.2	1,576.6
Selling, general and administrative expense	43.8	—	43.8
Depreciation and amortization	72.3	—	72.3
Other income, net	(40.2)	—	(40.2)
Total operating costs and expenses	1,625.3	27.2	1,652.5
Operating income	270.6	(13.1)	257.5
Total non-operating expense, net	82.0	—	82.0
Income before income taxes	188.6	(13.1)	175.5
Income tax provision	51.3	(3.5)	47.8
Net income	$ 137.3	$ (9.6)	$ 127.7
Earnings per share of common stock			
Basic earnings per share	$ 1.80	$ (0.13)	$ 1.67
Diluted earnings per share	$ 1.75	$ (0.12)	$ 1.63
Weighted average shares of common stock outstanding, basic	74.8	—	74.8
Weighted average shares of common stock outstanding, diluted	76.8	—	76.8

Condensed Consolidated Statement of Comprehensive Income

	Year Ended December 31, 2018		
	As Reported	Effect of Adoption	Amounts Excluding Effect of Adoption
	(In millions)		
Net income	$ 137.3	$ (9.6)	$ 127.7
Other comprehensive income:			
Actuarial losses and amortization of actuarial losses, net of income taxes	33.2	—	33.2
Comprehensive income	$ 170.5	$ (9.6)	$ 160.9

Condensed Consolidated Statement of Cash Flows

	Year Ended December 31, 2018		
	As Reported	Effect of Adoption	Amounts Excluding Effect of Adoption
		(In millions)	
Operating Activities			
Net income	$ 137.3	$ (9.6)	$ 127.7
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	72.3	—	72.3
Amortization of debt discount and deferred financing costs	8.9	—	8.9
Stock-based compensation	20.5	—	20.5
Retirement benefits, net	15.9	—	15.9
Other, net	(2.2)	—	(2.2)
Changes in assets and liabilities:			
Accounts receivable, net	(47.3)	57.1	9.8
Contract assets	10.5	1.2	11.7
Other current assets, net	21.5	(8.1)	13.4
Recoverable environmental remediation costs	(20.0)	—	(20.0)
Other noncurrent assets	5.8	—	5.8
Accounts payable	(39.4)	—	(39.4)
Contract liabilities	29.2	(42.2)	(13.0)
Other current liabilities	40.9	(31.8)	9.1
Deferred income taxes	4.7	33.4	38.1
Reserves for environmental remediation costs	(13.5)	—	(13.5)
Other noncurrent liabilities and other	7.6	—	7.6
Net Cash Provided by Operating Activities	252.7	—	252.7
Investing Activities			
Net Cash Used in Investing Activities	(20.9)	—	(20.9)
Financing Activities			
Net Cash Used in Financing Activities	(26.5)	—	(26.5)
Net Increase in Cash, Cash Equivalents and Restricted Cash	205.3	—	205.3
Cash, Cash Equivalents and Restricted Cash at Beginning of Year	535.0	—	535.0
Cash, Cash Equivalents and Restricted Cash at End of Year	$ 740.3	$ —	$ 740.3

Note 15. Subsequent Event

As of February 16, 2021, the Company has received $135.4 million of conversion notices from the holders of the 2¼% Notes that will settle in the first quarter of 2021. The Company will cash settle the principal amount of the 2¼% Notes and the conversion premium will be settled in common shares.

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

None.

Item 9A. *Controls and Procedures*

Disclosure Controls and Procedures

As of December 31, 2020, we conducted an evaluation under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures. The term "disclosure controls and procedures," as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended ("Exchange Act"), means controls and other procedures of a company that are designed to provide reasonable assurance that information required to be disclosed by the Company in the reports it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures are also designed to provide reasonable assurance that such information is accumulated and communicated to the Company's management, including its Chief Executive Officer and Chief Financial Officer, to allow timely decisions regarding required disclosure. Based on this evaluation, our Chief Executive Officer and Chief Financial Officer concluded as of December 31, 2020, that our disclosure controls and procedures were effective at the reasonable assurance level.

Management's Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act. The rules define internal control over financial reporting as a process designed by, or under the supervision of, the Company's Chief Executive Officer and Chief Financial Officer, 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. Our internal control over financial reporting includes those policies and procedures that:

- Pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Company;
- Provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the Company are being made only in accordance with authorizations of management and directors of the Company; and
- Provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the Company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. In addition, 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.

With the participation of the Chief Executive Officer and the Chief Financial Officer, our management conducted an evaluation of the effectiveness of our internal control over financial reporting based on the criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"). Based on this evaluation, our management has concluded that our 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 PricewaterhouseCoopers LLP, our independent registered public accounting firm. Their report appears in Item 8 of this Form 10-K.

Changes in Internal Control Over Financial Reporting

There were no changes in internal control over financial reporting that occurred during the most recent quarter that have materially affected, or are reasonably likely to materially affect, the effectiveness of our internal control over financial reporting.

Item 9B. *Other Information*

None.

PART III

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

Directors of the Registrant

Information with respect to directors of the Company who will stand for election at the 2021 Annual Meeting of Stockholders is set forth under the heading "PROPOSAL 1 – ELECTION OF DIRECTORS" in our 2021 Proxy Statement for our 2021 Annual Meeting of Stockholders ("2021 Proxy Statement"), which will be filed with the SEC within 120 days after the close of our year. Such information is incorporated herein by reference.

The information in our 2021 Proxy Statement set forth under the caption "Delinquent Section 16(a) Reports" is incorporated herein by reference. Information regarding stockholder communications with our Board of Directors may be found under the caption "Communications with Directors" in our 2021 Proxy Statement and is incorporated herein by reference.

Information about our Executive Officers

The following information is given as of December 31, 2020.

Name	Other Business Experience
Warren G. Lichtenstein Executive Chairman (since June 2016) Age: 55	Chairman, March 2013 – June 2016 (Director since 2008); Executive Chairman of Steel Partners Holdings GP Inc., the general partner of SPLP February 2013 – Present; Chairman and CEO of general partner of SPLP July 2009 – February 2013; Chairman, Handy & Harman Ltd. (formerly known as WHX Corporation) July 2005 – Present; Executive Chairman, Steel Connect, Inc. June 2016 – Present; Interim CEO, Steel Connect, Inc. March 2016 – June 2016; Chairman, Steel Connect, Inc. March 2013 – June 2016. Chairman Steel Excel May 2011 – Present (director since 2010); Director SLI March 2010 – Present; Director (formerly Chairman) SLI January 2002 – May 2008; CEO SLI February 2002 – August 2005.
Eileen P. Drake Chief Executive Officer and President (since June 2015) Age: 54	Chief Operating Officer, March 2015 – June 2015; Director, Woodward, Inc. February 2017 – Present; President of Pratt & Whitney AeroPower's auxiliary power unit and small turbojet propulsion business, UTC 2012 – 2015; Vice President ("VP") of Operations, UTC 2009 – 2012; VP of Quality, Environmental Health & Safety, and Achieving Competitive Excellence, UTC 2003 – 2009; Product Line Manager and Plant Manager, Ford Motor Company 1996 – 2003; United States Army 1989 – 1996.
Amy Gowder Chief Operating Officer (since May 2020) Age: 45	Employed by Lockheed Martin from 2005 – 2020 with recent positions including: Vice President and General Manager of Lockheed's Training and Logistics Solutions 2017 – 2020; Vice President of Supply Chain Management of Lockheed Martin Aeronautics 2015 – 2016, Vice President and General Manager of the Kelly Aviation Center 2012 – 2015. Consulting services at Accenture PLC focusing on supply chain management (1998 – 2005).
Daniel L. Boehle Vice President, Chief Financial Officer (since August 2020) Age: 48	Vice President and Controller 2017 – 2020. Employed by Northrop Grumman Corporation from 2001 – 2017 with positions including: Director of Aerospace Systems Sector Financial Planning, Reporting and Analysis 2013 –2017, Director, Corporate Internal Audit 2012 – 2013, Director, Corporate Assistant Controller 2008 – 2012, and Manager, Financial Reporting 2001–2008. Financial Assurance services at KPMG LLP focusing on audits of various publicly held companies 1994 – 2001.
John D. Schumacher Senior Vice President, Washington Operations and Communications (since September 2019) Age: 66	Senior Vice President, Washington Operations August 2018 – September 2019, VP, Washington Operations June 2015 – August 2018; VP, Business Relations April 2013 – June 2015; President, Aerojet Rocketdyne Foundation since October 2013; President, Astrium Americas and VP, Space, EADS North America April 2011 – April 2013; VP, Washington Operations, Aerojet May 2006 – April 2011; Director, Whitney, Bradley & Brown Consulting September 2005 – May 2006; Chief of Staff, National Aeronautics and Space Administration ("NASA") May 2003 – September 2005; Associate Administrator for External Relations, NASA 1994 – 2003; Deputy Associate Administrator, NASA 1990 – 1994; Advisor to the Administrator, NASA 1989 – 1990; Associate, Rogers & Wells, NY, 1987 – 1989; Captain, Naval Reserve 1984 – 2006; Active Duty U.S. Navy 1972 – 1984.

Name	Other Business Experience
Arjun L. Kampani Senior Vice President, General Counsel and Secretary (since May 2020) Age: 49	Vice President, General Counsel and Secretary (2016 – 2020). VP, General Counsel and Corporate Secretary, General Dynamics Land Systems, Inc. 2010 – 2016; Director & Assistant General Counsel, Mergers and Acquisitions, General Dynamics Corporation 2006 – 2009; Assistant General Counsel and Assistant Corporate Secretary, Anteon International Corporation 2004 – 2006; Attorney, Business and Finance Department, Thelen Reid & Priest, LLP 1999 – 2004.

The Company's executive officers generally hold terms of office of one year and/or until their successors are elected and serve at the discretion of the Board.

Code of Ethics and Corporate Governance Guidelines

The Company has adopted a code of ethics known as the Code of Conduct that applies to the Company's directors and employees including the principal executive officer and principal financial officer. Copies of the Code of Conduct and the Company's Corporate Governance Guidelines are available on the Company's website at *www.AerojetRocketdyne.com* (copies are available in print to any stockholder or other interested person who requests them by writing to Secretary, Aerojet Rocketdyne Holdings, Inc., 222 N. Pacific Coast Highway, Suite 500, El Segundo, California 90245). Amendments to the Code of Conduct and any grant of a waiver from a provision of the Code of Conduct requiring disclosure under applicable SEC rules will be disclosed on the Company's website at *www.AerojetRocketdyne.com* within the four business days following the amendment or waiver.

Audit Committee and Audit Committee Financial Expert

Information regarding the Audit Committee and the Audit Committee's Financial Expert is set forth under the heading "Board Committees" in our 2021 Proxy Statement and is incorporated herein by reference.

Item 11. ***Executive Compensation***

Information concerning executive compensation may be found under the captions "Executive Compensation," "2020 Director Compensation Table," "Compensation Discussion and Analysis," "2020 Summary Compensation Table," "2020 Grants of Plan-Based Awards," "Outstanding Equity Awards at 2020 Year End," "2020 Option/SAR Exercises and Stock Vested," "2020 Pension Benefits," "2020 Non-Qualified Deferred Compensation," "Potential Payments upon Termination of Employment or Change in Control," "Employment Agreement and Indemnity Agreements," "Director Compensation," "Organization & Compensation Committee Report" and "Compensation Committee Interlocks and Insider Participation" of our 2021 Proxy Statement. Such information is incorporated herein by reference.

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

The information under the headings "Security Ownership of Certain Beneficial Owners" and "Security Ownership of Officers and Directors" in our 2021 Proxy Statement is incorporated herein by reference.

Equity Compensation Plan Information

The table below sets forth certain information regarding the following equity compensation plans of the Company, pursuant to which we have made equity compensation available to eligible persons, as of December 31, 2020: (i) 2009 Equity and Performance Incentive Plan; (ii) 2018 Equity and Performance Incentive Plan; and (iii) 2019 Equity and Performance Incentive Plan. All three plans were approved by our stockholders.

Plan Category	Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights	Weighted-Average Exercise Price of Outstanding Options, Warrants and Rights	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column (a))
	(a)	(b)	(c)
Equity compensation plans approved by stockholders			
Stock options	38,868	$ 23.06	
Restricted shares (2)	—		
Performance shares (3)	—		
Restricted units	96,823	$ 46.00	
Performance units	443,230	$ 47.85	
Total	578,921	$ 45.91	4,215,275 (1)
Equity compensation plans not approved by stockholders (4)	—	N/A	—
Total	578,921	$ 45.91	4,215,275

(1) As of December 31, 2020, there are no more shares available to be issued under any type of incentive award under the 2009 Equity and Performance Incentive Plan and the 2018 Equity and Performance Plan (the "Prior Plans"). The number of shares approved for issuance to participants under the 2019 Equity and Performance Incentive Plan (the "Plan") is 4,453,022 shares plus shares issued under the Prior Plans that are forfeited or withheld to settle income tax obligations, all of which may be awarded as incentive stock options. Subject to the total shares available to be issued under the Plan, the following specific limit applies: The maximum aggregate dollar value of equity-based awards and cash compensation granted under the Plan or otherwise during any Plan Year to any one nonemployee director shall not exceed $400,000 ($800,000 for a nonemployee director designated as Chairman of the Board).

(2) As of December 31, 2020, 177,101 shares had been granted as restricted shares that had not yet vested.

(3) As of December 31, 2020, 503,898 shares had been granted as performance shares that had not yet vested.

(4) The Company also maintains the Aerojet Rocketdyne Holdings, Inc. and Participating Subsidiaries Deferred Bonus Plan. Prior to 2016, this plan allowed participating employees to defer a portion of their compensation for future distribution. All or a portion of such deferrals made prior to November 30, 2009, could be allocated to an account based on the Company’s common stock and does permit limited distributions in the form of Company common shares. However, distributions in the form of common shares are permitted only at the election of the Organization & Compensation Committee of the Board of Directors and, according to the terms of the plan, individuals serving as officers or directors of the Company are not permitted to receive distributions in the form of Company common shares until at least six months after such individual ceases to be an officer or director of the Company. The table does not include information about this plan because no options, warrants or rights are available under this plan and no specific number of shares is set aside under this plan as available for future issuance. Based upon the price of Company common shares on December 31, 2020, the maximum number of shares that could be distributed to employees not subject to the restrictions on officers and directors (if permitted by the Organization & Compensation Committee) would be 888. This plan was amended effective November 30, 2009, to prevent the application of future deferrals to the Company common stock investment program.

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

Information regarding certain transactions and employment agreements with management is set under the headings "Employment and Indemnity Agreements," "Related Person Transaction Policy" and "Potential Payments upon Termination of Employment or Change in Control" in our 2021 Proxy Statement and is incorporated herein by reference. Information regarding director independence is set forth under the heading "Determination of Independence of Directors" in our 2021 Proxy Statement and is incorporated herein by reference.

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

The information in our 2021 Proxy Statement set forth under the captions "Proposal 3 - Ratification of the Appointment of Independent Auditors," "Audit Fees and All Other Fees," and "Policy on Audit Committee Pre-Approval of Audit and Permissible Non-Audit Services of the Company's Independent Auditors" is incorporated herein by reference.

Part IV

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

(a) The following documents are filed as part of this report:

(1) FINANCIAL STATEMENTS

(b) EXHIBITS

EXHIBIT INDEX

		Incorporated herein by reference				
Table Item No.	Exhibit Description	Form	File Number	Exhibit	Filing Date	Filed or Furnished herewith
2.1	Amended and Restated Stock and Asset Purchase Agreement, by and between United Technologies Corporation and GenCorp Inc., dated June 12, 2013	8-K	1-01520	2.1	June 14, 2013	
2.2	Plan of Conversion	8-K	1-01520	2.1	April 11, 2014	
2.3	Agreement and Plan of Merger, dated December 20, 2020, by and among Aerojet Rocketdyne Holdings, Inc., Lockheed Martin Corporation, and Mizar Sub, Inc.	8-K	1-01520	2.1	December 21, 2020	
3.1	Certificate of Conversion, as filed with the Secretary of State of the State of Ohio	8-K	1-01520	3.1	April 11, 2014	
3.2	Certificate of Conversion	8-K	1-01520	3.2	April 11, 2014	
3.3	Certificate of Incorporation, as of April 11, 2014, as amended on April 27, 2015	10-K	1-01520	3.3	February 16, 2016	
3.4	Aerojet Rocketdyne Holdings, Inc. Second Amended and Restated Bylaws	8-K	1-01520	3.1	January 20, 2016	
4.1	Description of Capital Stock	10-K	1-01520	4.1	February 19, 2020	
4.2	GenCorp Retirement Savings Plan	S-8	333-0152032	4.1	June 30, 2008	
4.3	Form of Common Stock Certificate	8-K	1-01520	4.1	April 11, 2014	
4.4	GenCorp Inc. Amended and Restated 2009 Equity and Performance Incentive Plan	S-8	333-203319	4.1	April 9, 2015	
4.5	Indenture between Aerojet Rocketdyne Holdings, Inc. and The Bank of New York Mellon Trust Company, N.A., as trustee, relating to Aerojet Rocketdyne Holdings, Inc.'s 2.25% Convertible Senior Notes due 2023.	8-K	1-01520	4.1	December 14, 2016	
4.6	Form of 2.25% Convertible Senior Note due 2023	8-K	1-01520	4.2	December 14, 2016	
4.7	2018 Equity and Performance Incentive Plan	DEF 14A	1-01520	A	March 29, 2018	
4.8	2019 Equity and Performance Incentive Plan	DEF 14A	1-01520	B	March 29, 2019	
10.1	Amended and Restated Environmental Agreement by and between Aerojet and Northrop Grumman, dated October 19, 2001	8-K	1-01520	2.4	November 5, 2001	
10.2†	GenCorp 1996 Supplemental Retirement Plan for Management Employees effective March 1, 1996	10-K	1-01520	B	February 13, 1997	
10.3†	2009 Benefit Restoration Plan for the GenCorp Inc. Pension Plan	8-K	1-01520	10.1	January 7, 2009	

10.4†	2009 Benefit Restoration Plan for the GenCorp Inc. 401(k) Plan	8-K	1-01520	10.2	January 7, 2009
10.5†	Deferred Bonus Plan of GenCorp Inc. and Participating Subsidiaries	10-K	1-01520	10.6	February 12, 2009
10.6†	Director Stock Appreciation Rights Agreement between GenCorp Inc. and Directors for grants of stock appreciation rights under the GenCorp Inc. 2009 Equity and Performance Incentive Plan	10-Q	1-01520	10.4	October 8, 2009
10.7†	Amendment to the Benefits Restoration Plan for Salaried Employees of GenCorp Inc. and Certain Subsidiary Companies, effective October 6, 2009	10-Q	1-01520	10.5	October 8, 2009
10.8†	Amendment to the 2009 Benefit Restoration Plan for the GenCorp Inc. 401(k) Plan, effective October 6, 2009	10-Q	1-01520	10.6	October 8, 2009
10.9†	Amendment to the 2009 Benefits Restoration Plan for the GenCorp Inc. Pension Plan, effective October 6, 2009	10-Q	1-01520	10.7	October 8, 2009
10.10†	Amendment to the Deferred Bonus Plan of GenCorp Inc. and Participating Subsidiaries, effective October 6, 2009	10-Q	1-01520	10.8	October 8, 2009
10.11†	Amendment to the GenCorp Inc. Deferred Compensation Plan for Nonemployee Directors, as amended, effective October 6, 2009	10-Q	1-01520	10.9	October 8, 2009
10.12†	Amendment to the GenCorp Inc. 1996 Supplemental Retirement Plan for Management Employees, effective October 6, 2009	10-Q	1-01520	10.10	October 8, 2009
10.13	Settlement Agreement by and between Aerojet and United States of America, dated November 29, 1992	10-K	1-01520	10.52	February 4, 2010
10.14	Modification No. 1 to the November 29, 1992 Settlement Agreement by and between Aerojet and United States of America, dated October 27, 1998	10-K	1-01520	10.53	February 4, 2010
10.15†	Form of Restricted Stock Agreement between the Company and Employees for grants of time-based vesting of restricted stock under the GenCorp Inc. Amended and Restated 2009 Equity and Performance Incentive Plan.	8-K	1-01520	10.1	May 13, 2013
10.16†	Amendment to the GenCorp Inc. Deferred Compensation Plan for Nonemployee Directors, as amended, effective April 11, 2013	10-Q	1-01520	10.1	July 9, 2013
10.17	Form of Indemnification Agreement	8-K	1-01520	10.1	April 11, 2014
10.18†	Amended and Restated 2013 Employee Stock Purchase Plan, dated June 24, 2014	10-Q	1-01520	10.1	October 10, 2014
10.19†	Amended and Restated Deferred Compensation Plan for Nonemployee directors, dated June 24, 2014	10-Q	1-01520	10.2	October 10, 2014
10.20†	Amended and Restated 2009 Equity and Performance Incentive Plan, dated June 24, 2014	10-Q	1-01520	10.3	October 10, 2014
10.21†	Form of Restricted Stock Agreement between the Company and Directors for grants of time-based vesting of restricted stock under the GenCorp Inc. Amended and Restated 2009 Equity and Performance Incentive Plan	10-Q	1-01520	10.4	October 10, 2014
10.22†	Form of Unrestricted Stock Agreement between the Company and Directors for grants of common stock under the GenCorp Inc. Amended and Restated 2009 Equity and Performance Incentive Plan	10-Q	1-01520	10.5	October 10, 2014
10.23†	Form of Director Nonqualified Stock Option Agreement between the Company and Directors for grants of nonqualified stock options under the GenCorp Inc. Amended and Restated 2009 Equity and Performance Incentive Plan	10-Q	1-01520	10.6	October 10, 2014
10.24†	Second Amended and Restated Employment Agreement between Aerojet Rocketdyne Holdings, Inc. and Eileen Drake, dated March 4, 2020	8-K	1-01520	10.2	March 6, 2020
10.25†	Amended and Restated Deferred Compensation Plan for Directors, dated February 22, 2017	10-Q	1-01520	10.1	May 8, 2017
10.26†	Aerojet Rocketdyne Holdings, Inc. Amended and Restated Executive Change in Control Severance Policy	8-K	1-01520	10.1	March 6, 2020
10.27†	Form of Restricted Stock Agreement between the Company and Employees for time-based grants under the 2018 Equity and Performance Incentive Plan	S-8	333-224823	99.2	May 10, 2018

10.28†	Form of Restricted Stock Agreement between the Company and Employees for performance-based grants under the 2018 Equity and Performance Incentive Plan	S-8	333-224823	99.3	May 10, 2018	
10.29†	Form of Unrestricted Stock Agreement between the Company and Directors for grants under the 2018 Equity and Performance Incentive Plan	S-8	333-224823	99.4	May 10, 2018	
10.30†	Form of Restricted Stock Agreement between the Company and Directors for matching share grants under the 2018 Equity and Performance Incentive Plan	S-8	333-224823	99.5	May 10, 2018	
10.31†	Form of Restricted Stock Agreement between the Company and Directors for annual share grants under the 2018 Equity and Performance Incentive Plan	S-8	333-224823	99.6	May 10, 2018	
10.32†	Form of Stock Appreciation Rights Agreement between the Company and Employees for grants under the 2018 Equity and Performance Incentive Plan	S-8	333-224823	99.7	May 10, 2018	
10.33	First Amendment to Fourth Amended and Restated Credit Agreement with Bank of America, N.A., dated September 20, 2018	8-K	1-01520	10.1	September 20, 2018	
10.34†	Form of Restricted Stock Agreement between the Company and Employees for grants under the 2019 Equity and Performance Incentive Plan	S-8	333-231423	99.2	May 13, 2019	
10.35†	Form of Restricted Stock Agreement between the Company and Directors for grants under the 2019 Equity and Performance Incentive Plan	S-8	333-231423	99.3	May 13, 2019	
10.36†	Form of Unrestricted Stock Agreement between the Company and Directors for grants under the 2019 Equity and Performance Incentive Plan	S-8	333-231423	99.4	May 13, 2019	
10.37†	Form of Stock Option Agreement between the Company and Employees for grants under the 2019 Equity and Performance Incentive Plan	S-8	333-231423	99.5	May 13, 2019	
10.38†	Form of Stock Appreciation Rights Agreement between the Company and Employees for grants under the 2019 Equity and Performance Incentive Plan	S-8	333-231423	99.6	May 13, 2019	
10.39†	Form of Restricted Stock Unit Agreement between the Company and the Executive Chairman for grants of restricted stock units under the Aerojet Rocketdyne Holdings, Inc. 2019 Equity and Performance Incentive Plan.	10-Q	1-01520	10.1	April 28, 2020	
10.40†	Form of Restricted Stock Unit Agreement between the Company and Employees for grants of restricted stock units under the Aerojet Rocketdyne Holdings, Inc. 2019 Equity and Performance Incentive Plan.	10-Q	1-01520	10.2	April 28, 2020	
10.41†	Amended and Restated Executive Retention Agreement by and between Aerojet Rocketdyne Holdings, Inc. and Mark A. Tucker, dated October 31, 2019	8-K	1-01520	10.1	November 1, 2019	
10.42†	Offer letter between Aerojet Rocketdyne Holdings, Inc. and Amy Gowder, dated March 17, 2020.	8-K	1-01520	10.1	May 7, 2020	
10.43†	Offer letter between Aerojet Rocketdyne Holdings, Inc. and Dan Boehle, dated August 6, 2020.	8-K	1-01520	10.1	August 7, 2020	
10.44†	Form of Restricted Stock Agreement between the Company and Employees for grants under the 2019 Equity and Performance Incentive Plan.					X
21.1*	Subsidiaries of the Company. of the Company.					X
23.1*	Consent of Independent Registered Public Accounting Firm.					X
24.1*	Power of Attorney					X
31.1*	Certification of Principal Executive Officer pursuant to Rule 13a-14(a) of the Securities Exchange Act of 1934, as amended.					X
31.2*	Certification of Principal Financial Officer pursuant to Rule 13a-14(a) of the Securities Exchange Act of 1934, as amended.					X
32.1*	Certification of Principal Executive Officer and Principal Financial Officer pursuant to Rule 13a-14(b) under the Securities Exchange Act of 1934 as amended, and 18 U.S.C. 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.					X

101.INS*	XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.	X
101.SCH*	XBRL Taxonomy Extension Schema Document	X
101.CAL*	XBRL Taxonomy Extension Calculation Linkbase Document	X
101.DEF*	XBRL Taxonomy Extension Definition Linkbase Document	X
101.LAB*	XBRL Taxonomy Extension Label Linkbase Document	X
101.PRE*	XBRL Taxonomy Extension Presentation Linkbase Document	X
104*	Cover Page Interactive Data File (included as Exhibit 101) -- the cover page interactive data file does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document	X

* Filed herewith. All other exhibits have been previously filed.

† Management contract or compensatory plan or arrangement.

Item 16. Form 10-K Summary

None

SIGNATURES

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

February 18, 2021

Aerojet Rocketdyne Holdings, Inc.

By: /s/ EILEEN P. DRAKE

Eileen P. Drake

Chief Executive Officer and President

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

Signature	Title	Date
/s/ EILEEN P. DRAKE Eileen P. Drake	Chief Executive Officer, President and Director (Principal Executive Officer)	February 18, 2021
/s/ DANIEL L. BOEHLE Daniel L. Boehle	Vice President, Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	February 18, 2021
* Warren G. Lichtenstein	Executive Chairman	February 18, 2021
* Kevin P. Chilton	Director	February 18, 2021
* Thomas A. Corcoran	Director	February 18, 2021
* James R. Henderson	Director	February 18, 2021
* Lance W. Lord	Director	February 18, 2021
* Audrey McNiff	Director	February 18, 2021
* Martin Turchin	Director	February 18, 2021
* By: /s/ DANIEL L. BOEHLE Daniel L. Boehle	Attorney-in-Fact pursuant to Power of Attorney	February 18, 2021

Board of Directors

General Kevin P. Chilton
USAF (Ret.)
President, Chilton & Associates LLC
Director since 2018

Thomas A. Corcoran
President of Corcoran Enterprises, LLC
Director since 2008

Eileen P. Drake
Chief Executive Officer and President
Aerojet Rocketdyne Holdings, Inc.
Director since 2015

James R. Henderson
CEO of Armor Express
Director since 2008

Warren G. Lichtenstein
Executive Chairman
Aerojet Rocketdyne Holdings, Inc.
Director since 2008

General Lance W. Lord
USAF (Ret.)
Senior Associate
The Four Star Group, LLC
HF GlobalNet, LLC
Director since 2015

Audrey A. McNiff
Director since 2020

Martin Turchin
Vice Chairman
CB Richard Ellis
Director since 2008

Executive Officers

Warren G. Lichtenstein
Executive Chairman of the Board

Eileen P. Drake
Chief Executive Officer and President

Amy L. Gowder
Chief Operating Officer

Daniel L. Boehle
Vice President, Chief Financial Officer

John D. Schumacher
Senior Vice President, Washington Operations and Communications

Arjun L. Kampani
Senior Vice President, General Counsel and Secretary

Address

Aerojet Rocketdyne Holdings, Inc.
222 N. Pacific Coast Highway
Suite 500
El Segundo, California 90245
310-252-8100

Shareholder Information

Common Stock
Exchange Listings:
New York Stock Exchange
Ticker Symbol: AJRD

Transfer Agent and Registrar
Computershare
Toll Free – Domestic Callers: 877-889-2023
International Callers: 201-680-6578

Address for Regular Mail
Computershare
C/O Computershare Shareholder Services
P.O. Box 505000
Louisville, Kentucky 40233-5000

Address for Overnight Carriers
Computershare
C/O Computershare Shareholder Services
462 South 4th Street
Suite 1600
Louisville, Kentucky 40202

Website
www.computershare.com/investor

Shareholder Online Inquiries
https://www-us.computershare.com/investor/contact

BuyDIRECT

A direct purchase and sale plan, BuyDIRECT, is available to shareholders and interested first-time investors, offering a convenient method of increasing investment in Aerojet Rocketdyne Holdings, Inc. The Company pays all brokerage commissions and bank service fees incurred on behalf of the participant in connection with stock purchases. Subject to terms and conditions of the plan, investments of up to $120,000 per year are used to buy more shares of the Company's Common Stock.

For additional information, or to participate, contact:
Computershare Trust Company, N.A.
P.O. Box 505000
Louisville, Kentucky 40233-5000

Independent Auditors

PricewaterhouseCoopers LLP
Sacramento, California

Investor Information

Security analysts and institutional investors seeking additional information about Aerojet Rocketdyne Holdings should contact:

Kelly Anderson
Vice President, Controller and Investor Relations
310-252-8155
IR@AerojetRocketdyne.com

Board of Directors Communications

Correspondence to members of the Aerojet Rocketdyne Holdings Board of Directors should be addressed to:

Chair, Corporate Governance & Nominating Committee
c/o Aerojet Rocketdyne Holdings, Inc.
Arjun L. Kampani
Vice President, General Counsel and Secretary
222 N. Pacific Coast Highway
Suite 500
El Segundo, California 90245

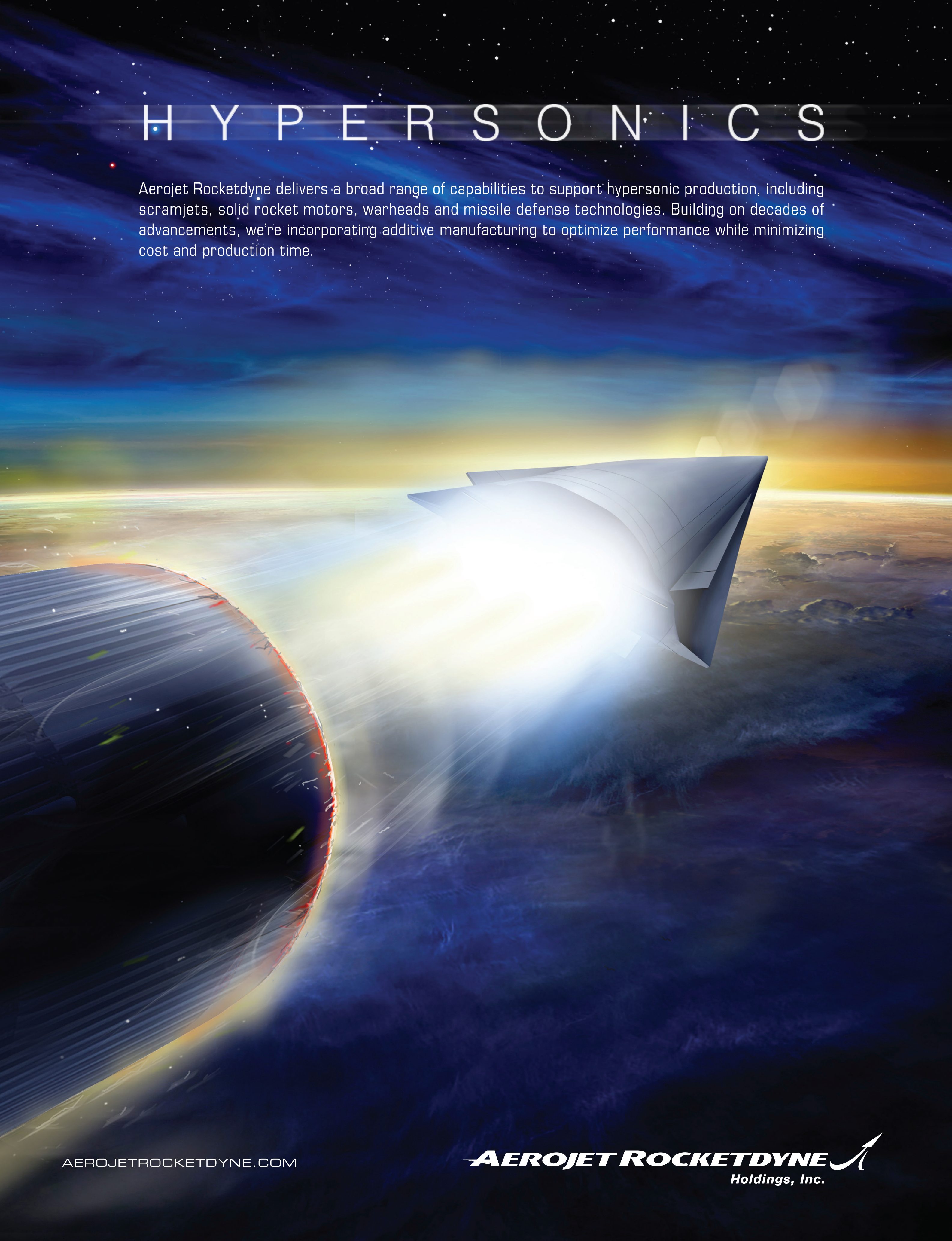
Corporate Communications

For inquiries about Aerojet Rocketdyne Holdings contact:

Steven H. Warren
Vice President of Communications
703-650-0278

Additional information about Aerojet Rocketdyne Holdings including recent news, can be found at
http://www.aerojetrocketdyne.com

A copy of the Company's Form 10-K as filed with the Securities and Exchange Commission (SEC) for 2020, which includes as Exhibits the Chief Executive Officer and Chief Financial Officer Certifications required to be filed with the SEC pursuant to Section 302 of the Sarbanes-Oxley Act, is included in this annual report and may also be obtained by shareholders without charge upon written request to Aerojet Rocketdyne Holdings, Inc., P.O. Box 537012, Sacramento, CA 95853-7012. Attn: Investor Relations. The Form 10-K is also available on the Company's web site at http://www.AerojetRocketdyne.com. During the Company's year ended December 31, 2020, the Company filed with the New York Stock Exchange (NYSE) the Certification of its Chief Executive Officer confirming that the Chief Executive Officer was not aware of any violations by the Company of the NYSE's corporate governance listing standards.


HYPERSONICS
Aerojet Rocketdyne delivers a broad range of capabilities to support hypersonic production, including scramjets, solid rocket motors, warheads and missile defense technologies. Building on decades of advancements, we're incorporating additive manufacturing to optimize performance while minimizing cost and production time.
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Holdings, Inc.

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Corporate Headquarters
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