2019 ANNUAL REPORT

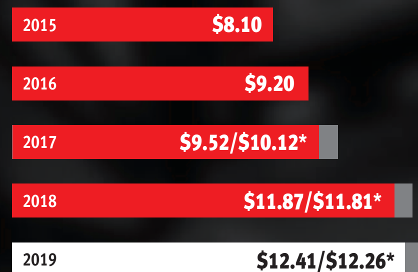
CELEBRATING MAKERS & FIXERS SINCE 1920

FOUNDED 100 YEARS AGO, SNAP-ON KNOWS THE MAKERS AND THE FIXERS OF THE WORLD AND UNDERSTANDS THEIR WORK.

Dividends Per Share

Since 1939, paid without interruption or reduction

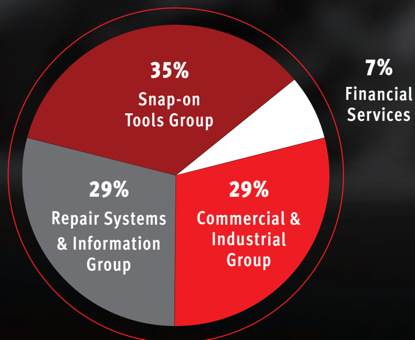
Earnings Per Diluted Share



*As adjusted. See "Reconciliation of Non-GAAP Financial Measures" on page 12 for a definition of, and further explanation about, earnings per diluted share, as adjusted.

Operating Segments

2019 Revenues by Segment



SNAP-ON MAKERS: *Snap-on associates Dan Lawson (Milwaukee – Snap-on Tools Group) and Bernard Shelton (Louisville – Snap-on Equipment) discuss innovations in manufacturing processes and the increasing technology and skill in our production facilities, including the Milwaukee hand tool factory (pictured here). Meanwhile, plant managers Jacob Gunia (Milwaukee – Snap-on Tools Group) and Svetlana Lobanok (Belarus – SNA Europe), along with Chairman and Chief Executive Officer, Nick Pinchuk, highlight the importance of RCI tools, such as this value stream map, to gain efficiencies throughout Snap-on's plants around the world .*

TO OUR SNAP-ON SHAREHOLDERS

CONNECTING WITH THE MAKERS AND THE FIXERS:
United Airlines technician, Anthony Gamch, shares his experiences with Snap-on associate Nick DiVerde (Mitchell 1) and Chairman and Chief Executive Officer, Nick Pinchuk, as they discuss the need for the right solutions in performing the most critical tasks. Joining them are associates Antonio Tsai (Snap-on Asia Pacific), Nathan Lee (Snap-on Specialty Tools) and Leslie Sepanski (Snap-on Corporate), who are reviewing the latest torque technology, much of which was developed specifically for the aviation and aerospace industry.

SNAP-ON MAKES WORK EASIER FOR SERIOUS PROFESSIONALS.

FROM OUR FOUNDING 100 YEARS AGO, WE'VE BEEN DEDICATED TO SERVING THE MAKERS AND THE FIXERS WHO PERFORM CRITICAL TASKS WHERE THE PENALTIES FOR FAILURE ARE HIGH.

Snap-on is rooted in the dignity of work. We enable working men and women who perform tasks of consequence day in and day out, often in harsh and punishing conditions. We connect with our customers and provide them with a broad array of unique productivity solutions, including tools, equipment, diagnostics, repair information and complex combinations of all these products, to meet the needs of the rapidly changing workplace.

We observe professionals, right in their places of work, developing a deep understanding of the challenges they face and providing the repeatability and reliability they need to get the job done. Snap-on knows work and with that experience creates the solutions of the future out of the practiced insights of the now. We celebrate the makers and the fixers that wield those solutions as they move the world forward.

Since the 1920 invention of the original Snap-on® interchangeable socket set, our principle value-creating mechanism has been to observe work, translate the insights gained and create solutions that make essential tasks easier. Opportunities to leverage this approach, both within and beyond vehicle repair, are embodied in our runways for growth: enhance the franchise network, expand with repair shop owners and managers, extend to critical industries and build in emerging markets. In 2019, we continued to invest in each of these strategically decisive areas.

At the same time, through our Snap-on Value Creation Processes, a suite of principles we use every day, we remain committed to the areas of safety, quality, customer connection, innovation and rapid continuous improvement (RCI). The continuing contributions of these runways for improvement were evident in diverse ways throughout 2019. For example, our overall safety incident rate[1] in 2019 of 0.99 was substantially lower than the levels recorded just 10 years ago, demonstrating our unwavering commitment to the well-being of our associates. Furthermore, we again received recognition for a number of our new products,

[1] Number of injuries and illnesses multiplied by 200,000, divided by hours worked.

earning awards from both *MOTOR Magazine* and *Professional Tool & Equipment News*, reflecting our success in connecting with customers and translating that insight into winning innovations. Since it was established in 2005, Snap-on's RCI framework, a structured set of tools and processes used across the Corporation to eliminate waste and improve operations, has delivered significant improvement in our operating margin. RCI served us well during 2019, attenuating pressures on our operating results, and providing improvements as these processes were further expanded across the acquisitions made over the last several years.

We were encouraged that our 2019 results, despite a variety of headwinds, again demonstrated our ability to serve serious professionals around the world. Net sales of $3,730.0 million decreased $10.7 million, or 0.3%, including $63.6 million of unfavorable foreign currency translation, partially offset by $7.5 million of acquisition-related sales and a $45.4 million, or 1.2%, organic sales[2] gain. The continued strengthening of the U.S. dollar adversely impacted our sales growth for the year by 170 basis points. In that regard, organic sales gains achieved with customers in the United States (U.S.) were tempered by lower activity in other regions, most significantly in Europe. In fact, organic volumes in the U.S. rose 2.6% in the year. With respect to our end markets, we saw modest growth in both automotive repair and in our industrial sectors, with similar geographic characteristics as the overall company.

By employing our Snap-on Value Creation Processes, we were able to weather the impact of multiple headwinds, including unfavorable currency, as was evident in our operating profitability. Reported operating margin before financial services of 19.2%, including 30 basis points of benefit from a legal settlement, compared to 19.4% in 2018, which included 10 basis points of benefit from a legal settlement. Excluding these items, operating margin before financial services, as adjusted, of 18.9%, including 20 basis points of unfavorable currency effects, compared to 19.3% in 2018. For the overall company, operating margin including financial services was 23.7% in 2019 compared with last year's 23.5%. Excluding the legal settlements in both years, the adjusted operating margin of 23.4% in 2019 was unchanged from 2018, despite the headwinds. Reported diluted earnings per share in 2019 of $12.41, including a $0.15 per diluted share benefit from the legal settlement, increased 4.5% year over year. Reported diluted earnings per share in 2018 of $11.87 included benefits of $0.06 per diluted share from a legal settlement in that year and $0.07 per diluted share from net debt items, as well as a $0.07 per diluted share charge from tax items. Excluding these items and despite the unfavorable foreign currency effects, 2019 diluted earnings per share, as adjusted, was $12.26, up 3.8% from $11.81 per diluted share, as adjusted, in 2018. (See page 12 for a definition of, and further explanations about, these non-GAAP financial measures that are adjusted to exclude certain items.)

In our **Commercial & Industrial (C&I) Group,** we serve a broad range of customers, including professionals in critical industries and emerging markets, primarily through direct and distributor channels. Segment net sales of $1,345.7 million increased 0.2%, reflecting a $32.2 million, or 2.5%, organic sales gain and $3.1 million of acquisition-related sales, offset by $32.9 million of unfavorable foreign currency translation. The organic sales increase included higher sales in the power tools division, in our specialty tools – or torque-related – business, and to customers in critical industries. Operating margin of 14.0% compared to 14.8% in 2018, due to higher sales in lower gross margin businesses, and higher sourcing and other costs. RCI activities aided in mitigating these headwinds.

[2]Organic sales is a non-GAAP financial measure that excludes acquisition-related sales and the impact of foreign currency translation.

EXTEND TO CRITICAL INDUSTRIES

*Our **Commercial & Industrial Group** serves a broad range of customers in critical industries, including aviation and aerospace, oil and gas, mining, railroad, power generation and the military. Our expanding array of new products and product lines, including a wider range of torque solutions, make work easier and provide greater opportunities to penetrate these large vertical markets.*

Pictured: (upper left) Oil and gas technicians in the field tightening bolts at a wellhead; (upper right) manufacturing associate Steve Green performing a quality check in our Elkmont, Alabama plant; (lower left) manufacturing associate Shaun Anderson completing assembly of a cordless torque multiplier in our Banbury, England torque facility; (lower right) a maintenance technician checking fasteners on a tank track.

BUILD IN EMERGING MARKETS

With an advanced engineering center and a state-of-the-art production facility in Kushan, China, our Asia Pacific operation designs and manufactures a broad range of Asianized products for the markets it serves through an extensive reseller network. The local team connects with customers across Asia, including the major markets of China, India and Japan.

Pictured: (top) A technician in India attaching one of our targets in preparation for a heavy duty alignment; (lower left) manufacturing associate Li Da Bing putting the finishing touches on a tool storage unit in our Kunshan, China plant; (lower right) automotive technicians performing repairs with our Blue-Point® tools in a shop in India.

The operating environment for C&I, which has our greatest international presence, was best characterized as mixed in 2019. Organic sales gains with customers in critical industries reflected higher activity in certain end markets, such as the U.S. military and the U.S. aviation sector, partially offset by lower volume in various international markets. However, we believe the opportunities to further penetrate these important vertical markets generally remains robust, and we continue to introduce innovative new products aimed at solving critical tasks faced by professionals in industries like aviation and aerospace, oil and gas, mining, power generation and the military.

In April 2019, we acquired Power Hawk Technologies, Inc. ("Power Hawk"), a designer, manufacturer and distributor of rescue tools and related equipment for a variety of military, government, and fire, rescue and emergency operations. The Power Hawk product line complemented and broadened our established capabilities in serving critical industries.

Power and precision are increasingly essential in making work easier for professionals in a variety of applications. In that regard, new product introductions were significant contributors to the sales growth in our power and torque tools businesses. Based on customer connection, our new ½-inch cordless impact wrench offers an extraordinary balance of power and weight, with a high-torque brushless motor, delivering speed and durability for when the work is critical. In our torque businesses, we've been investing to pursue the possibilities in critical industries, where torque is a natural partner. From aviation to oil and gas to heavy duty vehicles, we're combining capabilities from the acquisitions we've made over the past few years with our existing torque technologies to create powerful new products. Examples include our SpinTORQ 360™, a ground-breaking 360° continuous rotation pneumatic torque wrench, built for heavy duty bolting, making that difficult task easier and more precise, and a new series of window scale torque wrenches, aimed at the European market, incorporating our well-regarded Bahco® ergonomic design for ease of use.

Our Asia Pacific operations, despite near-term uncertainty in the region, recorded growth in vital markets including India, Korea and Indonesia, with India emerging strongly and recording double-digit gains. We believe the long-term potential is substantial for building in emerging markets, one of our runways for growth, and we continue to invest in our manufacturing, products and distribution for this important region.

In the **Snap-on Tools Group,** our franchised mobile van network primarily serving vehicle repair technicians, segment net sales of $1,612.9 million were essentially flat to 2018, reflecting a $14.7 million, or 0.9%, organic sales gain, offset by $15.6 million of unfavorable foreign currency translation. The organic increase reflects higher sales in our U.S. franchise operations, partially offset by lower activity in our international van network, primarily as a result of economic uncertainty in the United Kingdom (U.K.). Operating margin of 15.2%, including 60 basis points of unfavorable foreign currency effects as well as higher field support investments, compared to 16.4% in 2018.

Sales in the U.S. for the Snap-on Tools Group grew throughout the year, while the lower activity in our international markets was a consistent offset. Based on qualitative feedback from our franchisees and customers, as well as quantitative market data, we continue to believe vehicle repair is a favorable opportunity, despite the international headwinds, and that Snap-on is well-positioned to benefit over the longer term. Our franchisees' confidence in their business is evident in our network health metrics, the financial and physical indicators we monitor regularly, which include sales levels, profitability, equity and tenure. Furthermore, we continue to invest in our franchise model through training and other field support initiatives, enabling our franchisees to see more customers, sell more to existing customers, and effectively represent the capabilities of our innovative new products.

We believe our ability to provide new products that make work easier for technicians in the changing and the increasingly challenging repair shop of today is critical to the success of our franchise business model. Leveraging our engineering and manufacturing expertise and our related investments, we've introduced a continuous stream of new products, second-to-none in quality and focused on increasing technician efficiency. In that regard, we've expanded during the year on our revolutionary Flank Drive® Xtra (FDX™) socket system by introducing two new semi-deep socket sets. Our exclusive FDX™ wrenching system delivers 20% more overall turning power and produces up to 50% more power on those often-encountered well-used fasteners with rounded or damaged edges — all compared to our previous generation of sockets, which were already recognized as the best in the industry. Additionally, we launched our significantly improved snap ring plier line, utilizing a new push button quick release mechanism, enabling technicians to execute a compression-to-expansion conversion up to 80% faster than with the existing products. The new pliers are manufactured using our advanced cold forging technology and high alloy steel, resulting in the strength and durability required to enable the new design.

In 2019, we again received external recognition, confirming that a Snap-on Tools franchise provides significant opportunities for entrepreneurs to build a successful and sustainable business. In its annual ranking of the top 500 franchises, *Entrepreneur Magazine* ranked Snap-on 18th overall and first among mobile tool franchises. In addition, the *Franchise Business Review* (FBR) again identified Snap-on on its annual list of top franchises based on franchisee satisfaction. In fact, our franchise network has been included in every top satisfaction list since the FBR recognition was launched.

In the **Repair Systems & Information (RS&I) Group,** which serves owners and managers of OEM dealerships and of independent service and repair shops, segment net sales of $1,334.5 million compared to $1,334.4 million in 2018, reflecting a $15.1 million, or 1.1%, organic sales gain and $4.4 million of acquisition-related sales, offset by $19.4 million of unfavorable currency translation. The organic increase reflects gains in sales to OEM dealerships and in sales of diagnostic and repair information products to independent repair shop owners and managers. Operating margin of 25.7% was consistent with the prior year.

Across our RS&I businesses, we continue to address increasing vehicle complexity and ever-changing technologies. In 2019, we launched a series of products for Advanced Driver Assistance Systems (ADAS), including the Mitchell1® Driver Assist ADAS Quick Link feature in ProDemand® and a unique calibration array, using special target apparatus, to aid shops in recalibrating collision avoidance systems after light body repair, glass replacement or wheel alignment. These product introductions, combined with our diagnostics software, bring a full suite of ADAS-related products to independent repair shop owners and managers, enabling shops to repair vehicles with more accuracy and speed.

In 2019, we introduced our P1000™ motorcycle diagnostic tool, a comprehensive OEM-specific unit with coverage for many of the popular makes and models of motorcycles sold in North America. Based on customer connection, the new tool provides a wide range of diagnostic information, meeting an under-served need in the motorcycle repair market. Furthermore, with the launch of the Triton-D8®, we completed our family of Intelligent Diagnostics products, providing a handheld model that fits between the Apollo-D8™ and the Zeus® product lines. We believe Snap-on's broad array of Intelligent Diagnostics now meets the needs and budgets of the full range of professional repair technicians.

ENHANCE THE FRANCHISE NETWORK

*The **Snap-on Tools Group**, our franchised mobile van network, enables vehicle repair technicians by observing work and creating solutions that make essential tasks easier. New products, created in our factories, including new flex-head ratchets and enhanced tool storage, are an important success factor in our franchise business model by providing attention-getting tools aimed at decreasing job times.*

Pictured: (upper left) An automotive technician torquing engine bolts; (upper right) manufacturing associate Kevin Jones polishing a nearly-completed ratchet in our Elizabethton, Tennessee plant; (lower left) a Snap-on franchised van making a call on a repair shop; (lower right) manufacturing associate John Ferguson positioning tool storage panels in our Algona, Iowa plant.

EXPAND WITH REPAIR SHOP OWNERS AND MANAGERS

*With constantly changing vehicle technologies, Snap-on provides evolving solutions through its **Repair Systems & Information Group**. Snap-on innovations in diagnostics, alignment technology and big data analysis enable repair shops in meeting the new challenges found in the latest generation of vehicles.*

Pictured: (upper left) A repair shop service adviser utilizing our latest solutions in repair information; (upper right) Diagnostics associate Mariaelena Sims performing a final quality test in our San Jose, California facility; (lower left) Equipment associate Lorenzo Losi demonstrating alignment to a customer in our Corregio, Italy facility; (lower right) a technician diagnosing a heavy duty truck with a Snap-on® handheld unit.

Our new Triton-D8® includes advanced features intended to save time and boost productivity, by quickly guiding technicians to the problem area and by enabling them to verify component failures, potentially avoiding unnecessary replacement procedures.

In August 2019, we acquired Cognitran Limited, which specializes in flexible, modular and highly scalable software frameworks that enable the creation and delivery of service, diagnostics, parts and repair information for OEM customers and their dealers. Cognitran enhanced and expanded Snap-on's capabilities in providing shop efficiency solutions through integrated upstream services to OEM customers in automotive, heavy duty, agricultural and recreational applications.

Recognizing our advancements in vehicle repair technology and our opportunities to expand with shop owners and managers, Snap-on was honored by being included in *The Queen's Awards for Enterprise*, a highly coveted recognition in the U.K. For innovation, we were cited for our SureTrack® proprietary, big-data, problem-identification solution, which utilizes over 1 billion actual repair records. We were also highlighted in the international trade category, acknowledging Snap-on's broad sales of diagnostic platforms throughout Europe.

Financial Services operating earnings of $245.9 million on revenue of $337.7 million compared to operating earnings of $230.1 million on revenue of $329.7 million a year ago. Aimed at supporting essential big-ticket purchases by technicians and shops, as well as enabling our franchisees' investment in their businesses, our Financial Services operation, with a strong connection to the Snap-on Tools Group, has a decades-long track record of providing the advantage of customized financing to these particular constituencies in a variety of economic environments.

During 2019, under our existing share repurchase programs, we repurchased 1.495 million shares for $238.4 million, and we believe Snap-on has ample availability for future share repurchases under its current authorizations. In November 2019, our Board of Directors raised Snap-on's quarterly cash dividend by 13.7% to $1.08 per share. This is the tenth consecutive year with a dividend increase. Snap-on has paid consecutive quarterly cash dividends, without interruption or reduction, since 1939. These share repurchases and dividend actions reinforce our commitment to create long-term value for our shareholders. At the same time, our priorities for capital allocation remain to strategically invest, both organically and through acquisitions, along our defined runways for growth and improvement.

In 2020, we expect to continue our journey along our runways for improvement, the Snap-on Value Creation Processes, while at the same time advancing along each of our runways for growth: enhance the franchise network, expand with repair shop owners and managers, extend to critical industries and build in emerging markets. We will remain rooted in our respect for the dignity of work, providing the makers and the fixers, the working men and women of the world, with the innovative tools to solve critical tasks and with the Snap-on brand as the visible sign of their pride in declaring their special contribution in moving our society forward. Finally, as we celebrate our 100th year, I thank our franchisees and associates across the globe for their contributions and dedication, our Board of Directors for their support and counsel, and our customers and shareholders for their confidence and commitment.

Nicholas T. Pinchuk | *Chairman and Chief Executive Officer*

WHO WE ARE: OUR MISSION

THE MOST VALUED PRODUCTIVITY SOLUTIONS IN THE WORLD

Beliefs

We deeply believe in:

Non-negotiable Product and Workplace Safety

Uncompromising Quality

Passionate Customer Care

Fearless Innovation

Rapid Continuous Improvement

Values

Our behaviors define our success:

We demonstrate Integrity.

We tell the Truth.

We respect the Individual.

We promote Teamwork.

We Listen.

Vision

To be acknowledged as the:

Brands of Choice

Employer of Choice

Franchisor of Choice

Business Partner of Choice

Investment of Choice

SNAP-ON VALUE CREATION

PRINCIPLES AND PROCESSES WE APPLY TO CREATE VALUE

Founded on our mission and beliefs, these are strategic processes we use daily to create value across our Corporation.

Safety

Quality

Customer Connection

Innovation

Rapid Continuous Improvement

RECONCILIATION OF NON-GAAP FINANCIAL MEASURES

(Amounts in millions, except per share data)

As Reported	2019	2018	2017
Litigation-related matters			
Pre-tax benefit from legal settlements	$11.6	$ 4.3	$ —
Income tax expense related to legal settlements	(2.9)	(1.1)	—
Pre-tax legal charges	—	—	(45.9)
Income tax benefit related to legal charges	—	—	17.5
Litigation-related matters, after tax	$ 8.7	$ 3.2	$(28.4)
Gain on settlement of treasury lock and loss on early extinguishment of debt ("net debt items")			
Pre-tax net debt items	$ —	$ 5.5	$ —
Income tax expense	—	(1.4)	—
Net debt items, after tax	$ —	$ 4.1	$ —
Adjustments related to U.S. tax legislation			
Tax charges	$ —	$ (3.9)	$ (7.0)
Weighted average shares outstanding - diluted	55.9	57.3	58.6
Diluted EPS - legal settlements	$ 0.15	$ 0.06	$ —
Diluted EPS - legal charges	$ —	$ —	$(0.48)
Diluted EPS - net debt items	$ —	$ 0.07	$ —
Diluted EPS - tax charges	$ —	$(0.07)	$(0.12)

Adjusted Information - Non-GAAP	2019	2018	2017
1) Operating earnings before financial services			
As reported	$716.4	$726.0	$664.6
Litigation-related matters	(11.6)	(4.3)	45.9
As adjusted	$704.8	$721.7	$710.5
Operating earnings before financial services as a percentage of sales			
As reported	19.2%	19.4%	18.0%
As adjusted	18.9%	19.3%	19.3%
2) Operating earnings			
As reported	$962.3	$956.1	$882.1
Litigation-related matters	(11.6)	(4.3)	45.9
As adjusted	$950.7	$951.8	$928.0
Operating earnings as a percentage of revenues			
As reported	23.7%	23.5%	22.1%
As adjusted	23.4%	23.4%	23.2%
3) Net earnings attributable to Snap-on Incorporated			
As reported	$693.5	$679.9	$557.7
Litigation-related matters, after tax	(8.7)	(3.2)	28.4
Net debt items, after tax	—	(4.1)	—
Tax charges	—	3.9	7.0
As adjusted	$684.8	$676.5	$593.1
4) Diluted EPS			
As reported	$12.41	$11.87	$ 9.52
Litigation-related matters, after tax	(0.15)	(0.06)	0.48
Net debt items, after tax	—	(0.07)	—
Tax charges	—	0.07	0.12
As adjusted	$12.26	$11.81	$10.12

For 2019, 2018 and 2017, the company is including operating earnings before financial services, operating earnings, net earnings, and diluted earnings per share, all as adjusted. In 2019, the adjustments exclude the impact of a pre-tax $11.6 million benefit ($8.7 million after tax) for a settlement in a patent-related litigation matter that was being appealed. In 2018, the adjustments exclude the impact of a pre-tax $4.3 million benefit ($3.2 million after tax) for a settlement in an employment-related litigation matter that was being appealed, the impact of a net pre-tax $5.5 million gain ($4.1 million after tax) related to net debt items and the impact of a $3.9 million charge related to the implementation of tax legislation. In 2017, the adjustments exclude the impact of pre-tax charges of $45.9 million ($28.4 million after tax) related to judgments in litigation matters, including the patent-related litigation matter that settled in 2019 and the employment-related litigation matter that settled in 2018, and the impact of a $7.0 million charge related to the implementation of tax legislation. Management believes that these are unusual events and therefore the non-GAAP financial measures provide more meaningful year-over-year comparisons of the company's operating performance.

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 28, 2019, or

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

Commission File Number 1-7724

Snap-on Incorporated

(Exact name of registrant as specified in its charter)

Delaware	**39-0622040**
(State of incorporation)	*(I.R.S. Employer Identification No.)*
2801 80th Street Kenosha Wisconsin	**53143**
(Address of principal executive offices)	*(Zip code)*

(262) 656-5200
(Registrant's telephone number, including area code)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, $1.00 par value	SNA	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 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 is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

The aggregate market value of voting and non-voting common equity held by non-affiliates (excludes 667,320 shares held by directors and executive officers) computed by reference to the price ($165.64) at which common equity was last sold as of the last business day of the registrant's most recently completed second fiscal quarter (June 28, 2019) was $9.0 billion.

The number of shares of Common Stock ($1.00 par value) of the registrant outstanding as of February 7, 2020, was 54,659,446 shares.

DOCUMENTS INCORPORATED BY REFERENCE

Part III of this Annual Report on Form 10-K incorporates by reference certain information that will be set forth in Snap-on's Proxy Statement, which is expected to first be mailed to shareholders on or about March 11, 2020, prepared for the Annual Meeting of Shareholders scheduled for April 23, 2020.

TABLE OF CONTENTS

		Page
PART I		
Item 1	Business	4
Item 1A	Risk Factors	12
Item 1B	Unresolved Staff Comments	20
Item 2	Properties	20
Item 3	Legal Proceedings	22
Item 4	Mine Safety Disclosures	22
PART II		
Item 5	Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities	22
Item 6	Selected Financial Data	25
Item 7	Management's Discussion and Analysis of Financial Condition and Results of Operations	26
Item 7A	Quantitative and Qualitative Disclosures About Market Risk	50
Item 8	Financial Statements and Supplementary Data	51
Item 9	Changes in and Disagreements With Accountants on Accounting and Financial Disclosure	51
Item 9A	Controls and Procedures	52
Item 9B	Other Information	54
PART III		
Item 10	Directors, Executive Officers and Corporate Governance	54
Item 11	Executive Compensation	55
Item 12	Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters	55
Item 13	Certain Relationships and Related Transactions, and Director Independence	55
Item 14	Principal Accounting Fees and Services	55
PART IV		
Item 15	Exhibits, Financial Statement Schedules	56
Item 16	Form 10-K Summary	58
Signatures		117
Consent of Independent Registered Public Accounting Firm		122
Certifications		123

PART I

Safe Harbor

Statements in this document that are not historical facts, including statements that (i) are in the future tense; (ii) include the words “expects,” “plans,” “targets,” “estimates,” “believes,” “anticipates,” or similar words that reference Snap-on Incorporated (“Snap-on” or “the company”) or its management; (iii) are specifically identified as forward-looking; or (iv) describe Snap-on’s or management’s future outlook, plans, estimates, objectives or goals, are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Snap-on cautions the reader that any forward-looking statements included in this document that are based upon assumptions and estimates were developed by management in good faith and are subject to risks, uncertainties or other factors that could cause (and in some cases have caused) actual results to differ materially from those described in any such statement. Accordingly, forward-looking statements should not be relied upon as a prediction of actual results or regarded as a representation by the company or its management that the projected results will be achieved. For those forward-looking statements, Snap-on cautions the reader that numerous important factors, such as those listed below, as well as those factors discussed in this Annual Report on Form 10-K, particularly those in “Item 1A: Risk Factors,” could affect the company’s actual results and could cause its actual consolidated results to differ materially from those expressed in any forward-looking statement made by, or on behalf of, Snap-on.

These risks and uncertainties include, without limitation, uncertainties related to estimates, statements, assumptions and projections generally, and the timing and progress with which Snap-on can attain value through its Snap-on Value Creation Processes, including its ability to realize efficiencies and savings from its rapid continuous improvement and other cost reduction initiatives, improve workforce productivity, achieve improvements in the company’s manufacturing footprint and greater efficiencies in its supply chain, and enhance machine maintenance, plant productivity and manufacturing line set-up and change-over practices, any or all of which could result in production inefficiencies, higher costs and/or lost revenues. These risks also include uncertainties related to Snap-on’s capability to implement future strategies with respect to its existing businesses, its ability to refine its brand and franchise strategies, retain and attract franchisees, further enhance service and value to franchisees and thereby help improve their sales and profitability, introduce successful new products, successfully pursue, complete and integrate acquisitions, as well as its ability to withstand disruption arising from natural disasters, planned facility closures or other labor interruptions, the effects of external negative factors, including adverse developments in world financial markets, weakness in certain areas of the global economy (including as a result of the United Kingdom’s exit from the European Union), and significant changes in the current competitive environment, inflation, interest rates and other monetary and market fluctuations, changes in tax rates, laws and regulations as well as uncertainty surrounding potential changes, and the impact of energy and raw material supply and pricing, including steel and gasoline, as well as tariffs and other trade protection measures put in place by the U.S. or other countries, the amount, rate and growth of Snap-on’s general and administrative expenses, including health care and postretirement costs, continuing and potentially increasing required contributions to pension and postretirement plans, the impacts of non-strategic business and/or product line rationalizations, and the effects on business as a result of new legislation, regulations or government-related developments or issues, risks associated with data security and technological systems and protections, potential reputational damages and costs related to litigation, the ability to effectively manage personnel, and other world or local events outside Snap-on’s control, including terrorist disruptions. Snap-on disclaims any responsibility to update any forward-looking statement provided in this document, except as required by law.

In addition, investors should be aware that generally accepted accounting principles in the United States of America (“GAAP”) prescribe when a company should reserve for particular risks, including litigation exposures. Accordingly, results for a given reporting period could be significantly affected if and when a reserve is established for a major contingency. Reported results, therefore, may appear to be volatile in certain accounting periods.

Fiscal Year

Snap-on’s fiscal year ends on the Saturday that is on or nearest to December 31. Unless otherwise indicated, references in this document to “fiscal 2019” or “2019” refer to the fiscal year ended December 28, 2019; references to “fiscal 2018” or “2018” refer to the fiscal year ended December 29, 2018; and references to “fiscal 2017” or “2017” refer to the fiscal year ended December 30, 2017. Snap-on’s 2019, 2018 and 2017 fiscal years each contained 52 weeks of operating results. References in this document to 2019, 2018 and 2017 year end refer to December 28, 2019, December 29, 2018, and December 30, 2017, respectively.

Item 1: Business

Snap-on was incorporated under the laws of the state of Wisconsin in 1920 and reincorporated under the laws of the state of Delaware in 1930. Snap-on is a leading global innovator, manufacturer and marketer of tools, equipment, diagnostics, repair information and systems solutions for professional users performing critical tasks. Products and services include hand and power tools, tool storage, diagnostics software, handheld and PC-based diagnostic products, information and management systems, shop equipment and other solutions for vehicle dealerships and repair centers, as well as for customers in industries, such as aviation and aerospace, agriculture, construction, government and military, mining, natural resources, power generation and technical education. Snap-on also derives income from various financing programs designed to facilitate the sales of its products and support its franchise business.

Snap-on markets its products and brands worldwide through multiple sales distribution channels in more than 130 countries. Snap-on's largest geographic markets include the United States, Europe, Canada and Asia Pacific. Snap-on reaches its customers through the company's franchised, company-direct, distributor and internet channels.

The company began with the development of the original Snap-on interchangeable socket set in 1920 and subsequently pioneered mobile tool distribution in the automotive repair market, where well stocked vans sell to professional vehicle technicians at their place of business. Today, Snap-on defines its value proposition more broadly, extending its reach "beyond the garage" to deliver a broad array of unique solutions that make work easier for serious professionals performing critical tasks. The company's "coherent growth" strategy focuses on developing and expanding its professional customer base in its legacy automotive market, as well as in adjacent markets, additional geographies and other areas, including in critical industries, where the cost and penalties for failure can be high. In addition to its coherent growth strategy, Snap-on is committed to its "Value Creation Processes" – a set of strategic principles and processes designed to create value and employed in the areas of (i) safety; (ii) quality; (iii) customer connection; (iv) innovation; and (v) rapid continuous improvement ("RCI"). Snap-on's RCI initiatives employ a structured set of tools and processes across multiple businesses and geographies intended to eliminate waste and improve operations. Savings from Snap-on's RCI initiatives reflect benefits from a wide variety of ongoing efficiency, productivity and process improvements, including savings generated from product design cost reductions, improved manufacturing line set-up and change-over practices, lower-cost sourcing initiatives and facility consolidations.

Snap-on's primary customer segments include: (i) commercial and industrial customers, including professionals in critical industries and emerging markets; (ii) professional vehicle repair technicians who purchase products through the company's mobile tool distribution network; and (iii) other professional customers related to vehicle repair, including owners and managers of independent and original equipment manufacturer ("OEM") dealership service and repair shops ("OEM dealerships"). Snap-on's Financial Services customer segment includes: (i) franchisees' customers, principally serving vehicle repair technicians, and Snap-on customers who require financing for the purchase or lease of tools and diagnostics and equipment products on an extended-term payment plan; and (ii) franchisees who require financing for vehicle leases and business loans.

Snap-on's business segments are based on the organization structure used by management for making operating and investment decisions and for assessing performance. Snap-on's reportable business segments are: (i) the Commercial & Industrial Group; (ii) the Snap-on Tools Group; (iii) the Repair Systems & Information Group; and (iv) Financial Services. The Commercial & Industrial Group consists of business operations serving a broad range of industrial and commercial customers worldwide, including customers in the aerospace, natural resources, government, power generation, transportation and technical education market segments (collectively, "critical industries"), primarily through direct and distributor channels. The Snap-on Tools Group consists of business operations primarily serving vehicle service and repair technicians through the company's worldwide mobile tool distribution channel. The Repair Systems & Information Group consists of business operations serving other professional vehicle repair customers worldwide, primarily owners and managers of independent repair shops and OEM dealerships, through direct and distributor channels. Financial Services consists of the business operations of Snap-on Credit LLC ("SOC"), the company's financial services business in the United States, and Snap-on's other financial services subsidiaries in those international markets where Snap-on has franchise operations. See Note 19 to the Consolidated Financial Statements for information on business segments and foreign operations.

Snap-on evaluates the performance of its operating segments based on segment revenues, including both external and intersegment net sales, and segment operating earnings. Snap-on accounts for intersegment sales and transfers based primarily on standard costs with reasonable mark-ups established between the segments. Identifiable assets by segment are those assets used in the respective reportable segment's operations. Corporate assets consist of cash and cash equivalents (excluding cash held at Financial Services), deferred income taxes and certain other assets. Intersegment amounts are eliminated to arrive at Snap-on's consolidated financial results.

Recent Acquisitions

On August 7, 2019, Snap-on acquired Cognitran Limited ("Cognitran") for a preliminary cash purchase price of $30.4 million (or $29.4 million, net of cash acquired). The preliminary purchase price is subject to change based upon finalization of a working capital adjustment that is expected to be completed in the first quarter of 2020. Cognitran, based in Chelmsford, U.K., specializes in flexible, modular and highly scalable "Software as a Service" (SaaS) products for OEM customers and their dealers, focused on the creation and delivery of service, diagnostics, parts and repair information to the OEM dealers and connected vehicle platforms. The acquisition of Cognitran enhanced and expanded Snap-on's capabilities in providing shop efficiency solutions through integrated upstream services to OEM customers in automotive, heavy duty, agricultural and recreational applications.

On April 2, 2019, Snap-on acquired Power Hawk Technologies, Inc. ("Power Hawk") for a cash purchase price of $7.9 million. Power Hawk, based in Rockaway, New Jersey, designs, manufactures and distributes rescue tools and related equipment for a variety of military, governmental, fire and rescue, and emergency operations. The acquisition of the Power Hawk product line complemented and increased Snap-on's existing product offering and broadened its established capabilities in serving critical industries.

On January 25, 2019, Snap-on acquired substantially all of the assets of TMB GeoMarketing Limited ("TMB") for a cash purchase price of $1.3 million. TMB, based in Dorking, U.K., designs planning software used by OEMs to optimize dealer locations and manage the performance of dealer outlets. The acquisition of TMB extended Snap-on's product line in its core dealer network solutions business.

On January 31, 2018, Snap-on acquired substantially all of the assets of George A. Sturdevant, Inc. (d/b/a Fastorq) for a cash purchase price of $3.0 million. Fastorq, based in New Caney, Texas, designs, assembles and distributes hydraulic torque and hydraulic tensioning products for use in critical industries. The acquisition of the Fastorq product line complemented and increased Snap-on's existing torque product offering and broadened its established capabilities in serving in critical industries.

On July 28, 2017, Snap-on acquired Torque Control Specialists Pty Ltd ("TCS") for a cash purchase price of $3.6 million (or $3.5 million, net of cash acquired). TCS, based in Adelaide, Australia, distributes a full range of torque products, including wrenches, multipliers and calibrators, for use in critical industries. The acquisition of TCS enhanced and expanded Snap-on's capabilities in providing solutions that address torque requirements, which are increasingly essential to critical mechanical performance.

On May 4, 2017, Snap-on acquired Norbar Torque Tools Holdings Limited, along with its U.S. and Chinese joint ventures ("Norbar"), for a cash purchase price of $71.6 million (or $69.9 million, net of cash acquired). Norbar, based in Banbury, U.K., designs and manufactures a full range of torque products, including wrenches, multipliers and calibrators, for use in critical industries. The acquisition of Norbar enhanced and expanded Snap-on's capabilities in providing solutions that address torque requirements.

On January 30, 2017, Snap-on acquired BTC Global Limited ("BTC") for a cash purchase price of $9.2 million. BTC, based in Crewe, U.K., designs and implements automotive vehicle inspection and management software for OEM franchise repair shops. The acquisition of BTC enhanced Snap-on's capabilities to grow enterprise revenues and add increased productivity for repair workshops.

For segment reporting purposes, the results of operations and assets of Cognitran, TMB and BTC have been included in the Repair Systems & Information Group since the respective acquisition dates, and the results of operations and assets of Power Hawk, Fastorq, TCS and Norbar have been included in the Commercial & Industrial Group since the respective acquisition dates.

Pro forma financial information has not been presented for any of these acquisitions as the net effects, individually and collectively, were neither significant nor material to Snap-on's results of operations or financial position.

Information Available on the Company's Website

Additional information regarding Snap-on and its products is available on the company's website at www.snapon.com. Snap-on is not including the information contained on its website as a part of, or incorporating it by reference into, this Annual Report on Form 10-K. Snap-on's Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Proxy Statements on Schedule 14A and Current Reports on Form 8-K, as well as any amendments to those reports, are made available to the public at no charge through the Investors section of the company's website at www.snapon.com. Snap-on makes such material available on its website as soon as reasonably practicable after it electronically files such material with, or furnishes it to, the Securities and Exchange Commission ("SEC"). Copies of any materials the company files with the SEC can also be obtained free of charge through the SEC's website at www.sec.gov. In addition, Snap-on's (i) charters for the Audit, Corporate Governance and Nominating, and Organization and Executive Compensation Committees of the company's Board of Directors; (ii) Corporate Governance Guidelines; and (iii) Code of Business Conduct and Ethics are available on the company's website. Snap-on will also post any amendments to these documents, or information about any waivers granted to directors or executive officers with respect to the Code of Business Conduct and Ethics, on the company's website at www.snapon.com.

Products and Services

Tools; Diagnostics, Information and Management Systems; and Equipment

Snap-on offers a broad line of products and complementary services that are grouped into three product categories: (i) tools; (ii) diagnostics, information and management systems; and (iii) equipment. Further product line information is not presented as it is not practicable to do so. The following table shows the consolidated net sales of these product categories for the last three years:

	Net Sales		
(Amounts in millions)	2019	2018	2017
Product Category:			
Tools	$ 2,017.5	$ 2,021.2	$ 1,946.7
Diagnostics, information and management systems	827.5	797.9	800.4
Equipment	885.0	921.6	939.8
	$ 3,730.0	$ 3,740.7	$ 3,686.9

The *tools* product category includes hand tools, power tools, tool storage products and other similar products. Hand tools include wrenches, sockets, ratchet wrenches, pliers, screwdrivers, punches and chisels, saws and cutting tools, pruning tools, torque measuring instruments and other similar products. Power tools include cordless (battery), pneumatic (air), hydraulic and corded (electric) tools, such as impact wrenches, ratchets, screwdrivers, drills, sanders, grinders and similar products. Tool storage includes tool chests, roll cabinets and other similar products. For many industrial customers, Snap-on creates specific, engineered solutions, including facility-level tool control and asset management hardware and software, custom kits in a wide range of configurations, and custom-built tools designed to meet customer requirements. The majority of products are manufactured by Snap-on and, in completing the product offering, other items are purchased from external manufacturers.

The *diagnostics, information and management systems* product category includes handheld and PC-based diagnostic products, service and repair information products, diagnostic software solutions, electronic parts catalogs, business management systems and services, point-of-sale systems, integrated systems for vehicle service shops, OEM purchasing facilitation services, and warranty management systems and analytics to help OEM dealerships manage and track performance.

The *equipment* product category includes solutions for the service of vehicles and industrial equipment. Products include wheel alignment equipment, wheel balancers, tire changers, vehicle lifts, test lane systems, collision repair equipment, vehicle air conditioning service equipment, brake service equipment, fluid exchange equipment, transmission troubleshooting equipment, safety testing equipment, battery chargers and hoists.

Snap-on supports the sale of its diagnostics and vehicle service shop equipment by offering training programs as well as after-sales support for its customers, primarily focusing on the technologies and the application of specific products developed and marketed by Snap-on.

Products are marketed under a number of brand names and trademarks, many of which are well known in the vehicle service and industrial markets served. Some of the major trade names and trademarks and the products and services with which they are associated include the following:

Names	Products and Services
Snap-on	Hand tools, power tools, tool storage products (including tool control software and hardware), diagnostics, certain equipment and related accessories, mobile tool stores, websites, electronic parts catalogs, warranty analytics solutions, business management systems and services, OEM specialty tools and equipment development and distribution, and OEM facilitation services
ATI	Aircraft hand tools and machine tools
autoVHC	Vehicle inspection and training services
BAHCO	Saw blades, cutting tools, pruning tools, hand tools, power tools and tool storage
Blackhawk	Collision repair equipment
Blue-Point	Hand tools, power tools, tool storage, diagnostics, certain equipment and related accessories
Cartec	Safety testing, brake testers, test lane equipment, dynamometers, suspension testers, emission testers and other equipment
Car-O-Liner	Collision repair equipment, and information and truck alignment systems
CDI	Torque tools
Challenger	Vehicle lifts
Cognitran	OEM SaaS products
Ecotechnics	Vehicle air conditioning service equipment
Fastorq	Hydraulic torque and tensioning products
Fish and Hook	Saw blades, cutting tools, pruning tools, hand tools, power tools and tool storage
Hofmann	Wheel balancers, vehicle lifts, tire changers, wheel aligners, brake testers and test lane equipment
Irimo	Saw blades, cutting tools, hand tools, power tools and tool storage
John Bean	Wheel balancers, vehicle lifts, tire changers, wheel aligners, brake testers and test lane equipment
Josam	Heavy duty alignment and collision repair solutions
Lindström	Hand tools
Mitchell1	Repair and service information, shop management systems and business services
Nexiq	Diagnostic tools, information and program distributions for fleet and heavy duty equipment
Norbar	Torque tools
Power Hawk	Rescue tools and related equipment for military, government, fire and rescue
Pro-Cut	Brake service equipment and accessories
Sandflex	Hacksaw blades, bandsaws, saw blades, hole saws and reciprocating saw blades
ShopKey	Repair and service information, shop management systems and business services
Sioux	Power tools
Sturtevant Richmont	Torque tools
Sun	Diagnostic tools, wheel balancers, vehicle lifts, tire changers, wheel aligners, air conditioning products and emission testers
TruckCam	Commercial vehicle OEM factory solutions
Williams	Hand tools, tool storage, certain equipment and related accessories

Financial Services

Snap-on also generates revenue from various financing programs that include: (i) installment sales and lease contracts arising from franchisees' customers and Snap-on customers who require financing for the purchase or lease of tools and diagnostic and equipment products on an extended-term payment plan; and (ii) business loans and vehicle leases to franchisees. The decision to finance through Snap-on or another financing source is solely by election of the customer. When assessing customers for potential financing, Snap-on considers various factors regarding ability to pay, including the customers' financial condition, debt-servicing ability, past payment experience, and credit bureau and proprietary Snap-on credit model information, as well as the value of the underlying collateral.

Snap-on offers financing through SOC and the company's international finance subsidiaries in most markets where Snap-on has franchise operations. Financing revenue from contract originations is recognized over the life of the underlying contracts, with interest or finance charges computed primarily on the average daily balances of the underlying contracts.

Sales and Distribution

Snap-on markets and distributes its products and related services principally to professional tool and equipment users around the world. The two largest market sectors are the vehicle service and repair sector and the industrial sector.

Vehicle Service and Repair Sector

The vehicle service and repair sector has three main customer groups: (i) professional technicians who purchase tools and diagnostic and equipment products for use in their work; (ii) other professional customers related to vehicle repair, including owners and managers of independent repair shops and OEM dealerships who purchase tools and diagnostic and equipment products for use by multiple technicians within a service or repair facility; and (iii) OEMs.

Snap-on provides innovative tool, equipment and business solutions, as well as technical sales support and training, designed to meet technicians' evolving needs. Snap-on's mobile tool distribution system offers technicians the convenience of purchasing quality tools at their place of business with minimal disruption of their work routine. Snap-on also provides owners and managers of repair shops, where technicians work, with tools, diagnostic equipment, and repair and service information, including electronic parts catalogs and shop management products. Snap-on's OEM facilitation business provides OEMs with products and services including special and essential tools as well as consulting and facilitation services, which include product procurement, distribution and administrative support to customers for their dealership equipment programs.

The vehicle service and repair sector is characterized by an increasing rate of technological change within motor vehicles, vehicle population growth and increasing vehicle life, and the resulting effects of these changes on the businesses of both our suppliers and customers. Snap-on believes it is a meaningful participant in the vehicle service and repair market sector.

Industrial Sector

Snap-on markets its products and services globally to a broad cross-section of commercial and industrial customers, including maintenance and repair operations; manufacturing and assembly facilities; various government agencies, facilities and operations, including military operations; schools with vocational and technical programs; aviation and aerospace operations; oil and gas developers; mining operations; energy and power generation operations; equipment fabricators and operators; railroad manufacturing and maintenance; customers in agriculture; infrastructure construction companies; and other customers that require instrumentation, service tools and/or equipment for their products and business needs. The industrial sector for Snap-on focuses on providing value-added products and services to an increasingly expanding global base of customers in critical industries.

The industrial sector is characterized by a highly competitive environment with multiple suppliers offering either a full line or industry specific portfolios for tools and equipment. Industrial customers increasingly require specialized solutions that provide repeatability and reliability in performing tasks of consequence that are specific to the particular end market in which they operate. Snap-on believes it is a meaningful participant in the industrial tools and equipment market sector.

Distribution Channels

Snap-on serves customers primarily through the following channels of distribution: (i) the mobile van channel; (ii) company direct sales; (iii) distributors; and (iv) e-commerce. The following discussion summarizes Snap-on's general approach for each channel and is not intended to be all-inclusive.

Mobile Van Channel

In the United States, a significant portion of sales to the vehicle service and repair sector is conducted through Snap-on's mobile franchise van channel. Snap-on's franchisees primarily serve vehicle repair technicians and vehicle service shop owners, generally providing weekly contact at the customer's place of business. Franchisees' sales are concentrated in hand and power tools, tool storage products, shop equipment, and diagnostic and repair information products, which can be transported in a van or trailer and demonstrated during a sales call. Franchisees purchase Snap-on's products at a discount from suggested list prices and resell them at prices established by the franchisee. U.S. franchisees are provided a list of calls that serves as the basis of the franchisee's sales route. Snap-on's franchisees also have the opportunity to add a limited number of additional franchises.

Snap-on charges nominal initial and ongoing monthly franchise fees. Franchise fee revenue, including nominal, non-refundable initial and ongoing monthly fees (primarily for sales and business training, and marketing and product promotion programs), is recognized as the fees are earned. Franchise fee revenue totaled $15.4 million, $16.2 million and $15.2 million in fiscal 2019, 2018 and 2017, respectively.

Snap-on also has a company-owned route program that is designed to: (i) provide another pool of potential field organization personnel; (ii) service customers in select new and/or open routes not currently serviced by franchisees; and (iii) allow Snap-on to pilot new sales and promotional ideas prior to introducing them to franchisees. As of 2019 year end, company-owned routes comprised approximately 4% of the total route population. Snap-on may elect to increase or reduce the number of company-owned routes in the future.

In addition to its mobile van channel in the United States, Snap-on has replicated its U.S. franchise distribution model in certain other countries, including Canada, the United Kingdom, Japan, Australia, Germany, Netherlands, South Africa, New Zealand, Belgium and Ireland. In many of these markets, as in the United States, purchase decisions are generally made or influenced by professional vehicle service technicians as well as repair shop owners and managers. As of 2019 year end, Snap-on's worldwide route count was approximately 4,800, including approximately 3,450 routes in the United States.

Through SOC, financing is available to U.S. franchisees, including financing for van leases, working capital loans and loans to help enable new franchisees to fund the purchase of the franchise or the expansion of an existing franchise. In many international markets, Snap-on offers a variety of financing options to its franchisees and/or customer networks through its international finance subsidiaries. The decision to finance through Snap-on or another financing source is solely at the customer's election.

Snap-on supports its franchisees with a field organization of regional offices, franchise performance teams, customer care centers and distribution centers. Snap-on also provides sales and business training, and marketing and product promotion programs, as well as customer and franchisee financing programs through SOC and the company's international finance subsidiaries, all of which are designed to strengthen franchisee sales. National Franchise Advisory Councils in the United States, the United Kingdom, Canada and Australia, composed primarily of franchisees that are elected by franchisees, assist Snap-on in identifying and implementing enhancements to the franchise program.

Company Direct Sales

A significant proportion of shop equipment sales in North America under the John Bean, Hofmann, Blackhawk, Car-O-Liner, Challenger and Pro-Cut brands, diagnostic products under the Snap-on brand and information products under the Mitchell1 brand are made by direct and independent sales forces that have responsibility for national and other accounts. As the vehicle service and repair sector consolidates (with more business conducted by national chains and franchised service centers), Snap-on believes these larger organizations can be serviced most effectively by sales people who can demonstrate and sell the full line of diagnostic and equipment products and services. Snap-on also sells these products and services directly to OEMs and their franchised dealers.

Snap-on brand tools and equipment are marketed to industrial and governmental customers worldwide through both industrial sales associates and independent distributors. Selling activities focus on industrial customers whose main purchase criteria are quality and integrated solutions. As of 2019 year end, Snap-on had industrial sales associates and independent distributors primarily in the United States, Canada and in various European, Latin American, Middle Eastern, Asian and African countries, with the United States representing the majority of Snap-on's total industrial sales.

Snap-on also sells software, services and solutions to the automotive, commercial, heavy duty, agriculture, power equipment and power sports segments. Products and services are marketed to targeted groups, including OEMs and their dealerships, fleets and individual repair shops. To effectively reach OEMs, which frequently have a multi-national presence, Snap-on has deployed focused business teams globally.

Distributors

Sales of certain tools and equipment are made through independent distributors who purchase the items from Snap-on and resell them to end users. Hand tools sold under the BAHCO, Irimo, Lindström, CDI, ATI, Fastorq, Norbar, Sioux, Sturtevant Richmont and Williams brands and trade names, for example, are sold through distributors worldwide. Wheel service and other vehicle service equipment are sold through distributors primarily under brands including Hofmann, John Bean, Car-O-Liner, Challenger, Pro-Cut, Cartec, Blackhawk and Ecotechnics. Diagnostic and equipment products are marketed through distributors in South America and Asia, and through both a direct sales force and distributors in Europe under the Snap-on, Sun and Blue-Point brands.

E-commerce

Snap-on offers current and prospective customers online access to research and purchase products through its public website at www.snapon.com. The site features an online catalog of Snap-on hand tools, power tools, tool storage units and diagnostic equipment available to customers in the United States, the United Kingdom, Canada and Australia. E-commerce and certain other system enhancement initiatives are designed to improve productivity and further leverage the one-on-one relationships and service Snap-on has with its current and prospective customers. Sales through the company's e-commerce distribution channel were not significant in any of the last three years.

Competition

Snap-on competes on the basis of its product quality and performance, product line breadth and depth, service, brand awareness and imagery, technological innovation and availability of financing (through SOC or its international finance subsidiaries). While Snap-on does not believe that any single company competes with it across all of its product lines and distribution channels, various companies compete in one or more product categories and/or distribution channels.

Snap-on believes it is a leading manufacturer and distributor of professional tools, tool storage, diagnostic and equipment products, and repair software and solutions, offering a broad line of these products to both vehicle service and industrial marketplaces. Various competitors target and sell to professional technicians in the vehicle service and repair sector through the mobile tool distribution channel. Snap-on also competes with companies that sell tools and equipment to vehicle service and repair technicians online and through retail stores, vehicle parts supply outlets and tool supply warehouses/distributorships. Within the power tools category and the industrial sector, Snap-on has various other competitors, including companies with offerings that overlap with other areas discussed herein. Major competitors selling diagnostics, shop equipment and information to vehicle dealerships and independent repair shops include OEMs and their proprietary electronic parts catalogs and diagnostics and information systems, and other companies that offer products serving this sector.

Raw Materials and Purchased Product

Snap-on's supply of raw materials and purchased components are generally and readily available from numerous suppliers. Snap-on believes it has secured an ample supply of both bar and coil steel for the near future to ensure stable supply to meet material demands. The company does not currently anticipate experiencing any significant impact in 2020 from steel pricing or availability issues, though it is continuing to monitor the impact of tariffs and other trade protection measures put in place by the U.S. and other countries.

Patents, Trademarks and Other Intellectual Property

Snap-on vigorously pursues and relies on patent protection to protect its intellectual property and position in its markets. As of 2019 year end, Snap-on and its subsidiaries held approximately 780 active and pending patents in the United States and approximately 2,150 active and pending patents outside of the United States. Sales relating to any single patent did not represent a material portion of Snap-on's revenues in any of the last three years.

Examples of products that have features or designs that benefit from patent protection include hand tools (including sealed ratchets and ratcheting screwdrivers), power tools, wheel alignment systems, wheel balancers, tire changers, vehicle lifts, tool storage, tool control, collision measurement, test lanes, brake lathes, electronic torque instruments, emissions-sensing devices and diagnostic equipment.

Much of the technology used in the manufacture of vehicle service tools and equipment is in the public domain. Snap-on relies primarily on trade secret protection to protect proprietary processes used in manufacturing. Methods and processes are patented when appropriate. Copyright protection is also utilized when appropriate.

Trademarks used by Snap-on are of continuing importance to Snap-on in the marketplace. Trademarks have been registered in the United States and many other countries, and additional applications for trademark registrations are pending. Snap-on vigorously polices proper use of its trademarks. Snap-on's right to manufacture and sell certain products is dependent upon licenses from others; however, these products under license do not represent a material portion of Snap-on's net sales.

Domain names have become a valuable corporate asset for companies around the world, including Snap-on. Domain names often contain a trademark or service mark or even a corporate name and are often considered intellectual property. The recognition and value of the Snap-on name, trademark and domain name are core strengths of the company.

Snap-on strategically licenses the Snap-on brand to carefully selected manufacturing and distribution companies for items such as apparel and a variety of other goods, in order to further build brand awareness and market presence for the company's strongest brand.

Environmental

Snap-on is subject to various environmental laws, ordinances, regulations, and other requirements of government authorities in the United States and other nations. At Snap-on, these environmental liabilities are managed through the Snap-on Environmental, Health and Safety Management System ("EH & SMS"), which is applied worldwide. The system is based upon continual improvement and is certified to ISO 14001:2015 and OHSAS 18001:2007, verified through Det Norske Veritas (DNV) Certification, Inc.

Snap-on believes that it complies with applicable environmental control requirements in its operations. Expenditures on environmental matters through EH & SMS have not had, and Snap-on does not for the foreseeable future expect them to have, a material effect upon Snap-on's capital expenditures, earnings or competitive position.

Employees

Snap-on employed approximately 12,800 people at the end of January 2020 and 12,600 people at the end of January 2019. The year-over-year increase in employees reflects acquisitions during 2019.

Approximately 2,650 employees, or 21% of Snap-on's worldwide workforce, are represented by unions and/or covered under collective bargaining agreements. The number of covered union employees whose contracts expire over the next five years approximates 1,825 employees in 2020, 650 employees in 2021, and 175 employees in 2022; there are no contracts currently scheduled to expire in 2023 or 2024. In recent years, Snap-on has not experienced any significant work slowdowns, stoppages or other labor disruptions.

There can be no assurance that these and other future contracts with Snap-on's unions will be renegotiated upon terms acceptable to Snap-on.

Working Capital

Most of Snap-on's businesses are not seasonal and their inventory needs are relatively constant. Snap-on did not have a significant backlog of orders at 2019 year end. In recent years, Snap-on has been using its working capital to fund, in part, the growth of the company's financial services portfolio, increased inventory to support new product introductions and the acquisitions discussed above.

Snap-on's liquidity and capital resources and use of working capital are discussed herein in "Part II, Item 7: Management's Discussion and Analysis of Financial Condition and Results of Operations."

Snap-on does not have any single customer or government that represents 10% or more of its revenues in any of the indicated periods.

Social Responsibility

Snap-on is committed to conducting business and making decisions honestly, ethically, fairly and within the law, and is guided by the beliefs and values in the company's "Who We Are" mission statement. Snap-on is dedicated to earning and keeping the trust and confidence of its shareholders, customers, franchisees, distributors and associates, as well as of the communities where the company does business. Paramount to the company's commitment to integrity and social responsibility is the manner in which Snap-on treats its employees and the way in which others within its supply chain treat their employees. Snap-on has adopted policies that seek to eliminate human trafficking, slavery, forced labor and child labor from its global supply chain. In addition, Snap-on is committed to non-negotiable product and workplace safety. As a permanent and priority agenda item at all operational meetings, safety comes first. Snap-on strives to maintain a safe workplace and expects its employees to broadly embrace the company's safety programs. Snap-on invests in its strong safety culture and in elevating the importance of worker and product safety throughout all levels of the organization.

Item 1A: Risk Factors

In evaluating the company, careful consideration should be given to the following risk factors, in addition to the other information included in this Annual Report on Form 10-K, including the Consolidated Financial Statements and the related notes. Each of these risk factors could adversely affect the company's business, operating results, cash flows and/or financial condition, as well as adversely affect the value of an investment in the company's common stock.

Economic conditions and world events could affect our operating results.

We, our franchisees and our customers, may be adversely affected by changing economic conditions, including conditions that may particularly impact specific regions. These conditions may result in reduced consumer and investor confidence, instability in the credit and financial markets, volatile corporate profits, and reduced business and consumer spending. We, our franchisees and our customers, and the economy as a whole, also may be affected by future world or local events outside our control, such as tariffs and other trade protection measures put in place by the United States or other countries, acts of terrorism, developments in the war on terrorism, conflicts in international situations, weather events and natural disasters, outbreaks of infectious diseases, as well as government-related developments or issues. These factors may affect our results of operations by reducing our sales, margins and/or net earnings as a result of a slowdown in customer orders or order cancellations, impact the availability and/or pricing of raw materials and/or the supply chain, and could potentially lead to future impairment of goodwill or other intangible assets. In addition, political and social turmoil related to international conflicts and terrorist acts may put pressure on economic conditions abroad. Unstable political, social and economic conditions may make it difficult for our franchisees, customers, suppliers and us to accurately forecast and plan future business activities. If such conditions persist, our business, financial condition, results of operations and cash flows could be negatively affected.

In 2016, the United Kingdom voted in a referendum to exit the European Union ("Brexit"), which resulted in significant currency exchange rate fluctuations and volatility. The U.K. formally left the European Union on January 31, 2020, and is in a transition period that is currently scheduled to end on December 31, 2020 (the "transition period"). During the transition period, the U.K. essentially remains in the European Union's customs union and single market. Negotiations continue to determine the terms of Brexit. Given the lack of comparable precedent and the status of the negotiations, the implications of Brexit, or how such implications might affect Snap-on, continue to remain unclear at this time. Brexit could, among other impacts, disrupt trade and the movement of goods, services and people between the U.K. and the European Union or other countries, lead to additional volatility in currency exchange rates, as well as create legal and global economic uncertainty. These and other potential implications could adversely affect our business and results of operations.

In 2018, Canada, Mexico and the United States negotiated the United States-Mexico-Canada Agreement (the "USMCA"), which is intended to update and replace the North American Free Trade Agreement ("NAFTA"). The USMCA must be ratified by all three countries before it becomes fully effective. Mexico and the U.S. ratified the USMCA in 2019 and January 2020, respectively; however, timing of the potential ratification of the USMCA by Canada is currently unknown. While the USMCA is somewhat similar to NAFTA, it contains several new compliance obligations addressing such issues as rules of origin, labor standard, certificate of origin documentation and de minimis thresholds, as well as new policies on labor and environmental standards, intellectual property protections and some digital trade provisions. Snap-on is currently analyzing the expected impact of the USMCA. While certain aspects of the USMCA are expected to be positive, others, including potentially higher regulatory compliance costs, may have an adverse impact on our business.

These and other matters significantly impacting the regulation of trade could adversely affect our business and results of operations.

Price fluctuations and shortages of raw materials, components, certain finished goods inventory and energy sources could adversely affect the ability to obtain needed materials or products and could adversely affect our results of operations.

The principal raw material used in the manufacture of our products is steel, which we purchase in competitive, price-sensitive markets. To meet Snap-on's high quality standards, our steel needs range from specialized alloys, which are available only from a limited group of approved suppliers, to common alloys, which are available from multiple suppliers. Some of these materials have been, and in the future may be, in short supply, particularly in the event of mill shutdowns or production cut backs. As some steel alloys require specialized manufacturing procedures, we could experience inventory shortages if we were required to use an alternative manufacturer on short notice. These and other raw materials, components and certain finished goods inventory can exhibit price and demand cyclicality, including as a result of tariffs and other trade protection measures. Associated unexpected price increases could result in an erosion of the margins on our products or require us to pass higher prices on to our customers.

We use various energy sources to transport, produce and distribute products, and some of our products have components that are petroleum based. Petroleum and energy prices have periodically increased significantly over short periods of time; future volatility and changes may be caused by market fluctuations, supply and demand, currency fluctuations, production and transportation disruptions, world events and changes in governmental programs. Energy price increases raise both our operating costs and the costs of our materials, and we may not be able to increase our prices enough to offset these costs. Higher prices also may reduce the level of future customer orders and our profitability.

The performance of Snap-on's mobile tool distribution business depends on the success of its franchisees and the health of the vehicle repair market.

Approximately 40% of our consolidated net revenues in 2019 were generated by the Snap-on Tools Group, which consists of Snap-on's business operations primarily serving vehicle service and repair technicians through the company's worldwide mobile tool distribution channel. Snap-on's success is dependent on its relationships with franchisees, individually and collectively, as they are the primary sales and service link between the company and vehicle service and repair technicians, who are an important class of end users for Snap-on's products and services.

If our franchisees are not successful, or if we do not maintain an effective relationship with our franchisees, the delivery of products, the collection of receivables and/or our relationship with end users could be adversely affected and thereby negatively impact our business, financial condition, results of operations and cash flows.

In addition, if we are unable to maintain effective relationships with franchisees, Snap-on or the franchisees may choose to terminate the relationship, which may result in: (i) open routes, in which end-user customers are not provided reliable service; (ii) litigation resulting from termination; (iii) reduced collections or increased charge-offs of franchisee receivables owed to Snap-on; and/or (iv) reduced collections or increased charge-offs of finance and contract receivables.

We believe our ability to sell our products is also dependent on the number of vehicles on the road, the number of miles driven and the general aging of vehicles. These factors affect the frequency, type and amount of service and repair performed on vehicles by technicians, and therefore affect the demand for the number of technicians, the prosperity of technicians and, consequently, the demand technicians have for our tools, other products and services, and the value technicians place on those products and services. The use of other methods of transportation, including more frequent use of public transportation, could result in a decrease in the use of privately operated vehicles. A decrease in the use of privately operated vehicles may lead to fewer repairs and less demand for our products.

Exposure to credit risks of customers and resellers may make it difficult to collect receivables, and our allowances for credit losses for receivables may prove inadequate, which could adversely affect operating results and financial condition.

Our financial services portfolio represents a significant portion of the company's assets. A decline in industry and/or economic conditions could have the potential to weaken the financial position of some of our customers, including financial services customers. If circumstances surrounding our customers' ability to repay their credit obligations were to deteriorate and result in the write-down or charge-off of such receivables, it would negatively affect our operating results for the relevant period and, if large, could have a material adverse effect on our business, financial condition, results of operations and cash flows.

We maintain allowances for credit losses for receivables to provide for defaults and nonperformance, which represent an estimate of losses on our receivables portfolios. The determination of the appropriate levels of the allowances for credit losses involves a high degree of subjectivity and judgment, and requires the company to make estimates of current credit risks, which may undergo material changes. The allowances may not be adequate to cover actual losses, and future allowances for credit losses could materially and adversely affect our financial condition, results of operations and cash flows.

Our inability to provide acceptable financing alternatives to franchisees and other end-user customers could adversely impact our operating results.

An integral component of our business and profitability is our ability to offer competitive financing alternatives to franchisees and other end-user customers. The lack of our ability to offer such alternatives or obtain capital resources or other financing to support our receivables on terms that we believe are attractive, whether resulting from the state of the financial markets, our own operating performance, or other factors, would negatively affect our operating results and financial condition. Adverse fluctuations in interest rates and/or our ability to provide competitive financing programs could also have an adverse impact on our revenue and profitability.

Adverse developments in the credit and financial markets could negatively impact the availability of credit that we and our customers need to operate our businesses.

We depend upon the availability of credit to operate our business, including the financing of receivables from end-user customers that are originated by our financial services businesses. Our end-user customers, franchisees and suppliers also require access to credit for their businesses. At times, world financial markets have been unstable and subject to uncertainty. Adverse developments in the credit and financial markets, or unfavorable changes in Snap-on's credit rating, could negatively impact the availability of future financing and the terms on which it might be available to Snap-on, its end-user customers, franchisees and suppliers. Inability to access credit or capital markets, or a deterioration in the terms on which financing might be available, could have an adverse impact on our business, financial condition, results of operations and cash flows.

Increasing our financial leverage could affect our operations and profitability.

The maximum available credit under our multi-currency revolving credit facility is $800 million. The company's leverage ratio may affect both our availability of additional capital resources as well as our operations in several ways, including:

- The terms on which credit may be available to us could be less attractive, both in the economic terms of the credit and the covenants stipulated by the credit terms;
- The possible lack of availability of additional credit or access to the commercial paper market;
- The potential for higher levels of interest expense to service or maintain our outstanding debt;
- The possibility of additional borrowings in the future to repay our indebtedness when it comes due; and
- The possible diversion of capital resources from other uses.

While we believe we will have the ability to service our debt and obtain additional resources in the future if and when needed, that will depend upon our results of operations and financial position at the time, the then-current state of the credit and financial markets, and other factors that may be beyond our control. Therefore, we cannot give assurances that credit will be available on terms that we consider attractive, or at all, if and when necessary or beneficial to us.

Furthermore, a portion of our indebtedness bears interest at rates that fluctuate with changes in certain short-term prevailing interest rates, including LIBOR. Although we attempt to manage our exposure to rate fluctuations via hedging arrangements, such arrangements may be ineffective or may not protect us to the extent we expect. In addition, the United Kingdom's Financial Conduct Authority announced that after 2021 it would no longer persuade or compel panel banks to submit the rates required to calculate LIBOR, and it is unclear whether the banks currently reporting information used to set LIBOR will stop doing so after 2021. Although the consequences of these developments cannot be predicted at this time, should a suitable replacement for LIBOR not be available, the rates under our variable rate indebtedness could increase and access to capital could be limited.

Data security and information technology infrastructure and security are critical to supporting business objectives; failure of our systems to operate effectively could adversely affect our business and reputation.

We depend heavily on information technology infrastructure to achieve our business objectives and to protect sensitive information, and continually invest in improving such systems. Problems that impair or compromise this infrastructure, including natural disasters, power outages, major network failures, security breaches or malicious attacks, or during system upgrades and/or new system implementations, could impede our ability to record or process orders, manufacture and ship in a timely manner, manage our financial services operations including originating, processing, accounting for and collecting receivables, protect sensitive data of the company, our customers, our suppliers and business partners, or otherwise carry on business in the normal course. Any such events, if significant, could cause us to lose customers and/or revenue and could require us to incur significant expense to remediate, including as a result of legal or regulatory claims, proceedings, fines or penalties, and could also damage our reputation. While we have taken steps to maintain adequate data security and address these risks and uncertainties by implementing security technologies, internal controls, network and data center resiliency, and redundancy and recovery processes, as well as by securing insurance, these measures may be inadequate.

In association with initiatives to better integrate business units, rationalize operating footprint and improve responsiveness to franchisees and customers, Snap-on is continually replacing and enhancing its global Enterprise Resource Planning (ERP) management information systems. As we integrate, implement and deploy new information technology processes and enhance our information infrastructure across our global operations, we could experience disruptions in our business that could have an adverse effect on our business, financial condition, results of operations and cash flows.

Changes to legislation and regulations may affect our business, reputation, results of operations and financial condition.

Significant changes to legislative and regulatory activity and compliance burdens, including those associated with: (i) sales to our government, military and defense contractor customers; and (ii) classification of third parties, including our franchisees, as independent from the company, as well as the manner in which they are applied, could significantly impact our business and the economy as a whole.

Financial services businesses of all kinds are subject to significant and complex regulations and enforcement. In addition to potentially increasing the costs and other requirements of doing business due to compliance obligations, new laws and regulations, or changes to existing laws and regulations, as well as the enforcement thereof, may affect the relationships between creditors and debtors, inhibit the rights of creditors to collect amounts owed to them, expand liability for certain actions or inactions, or limit the types of financial products or services offered, any or all of which could have a material adverse effect on our financial condition, results of operations and cash flows. Failure to comply with any of these laws or regulations could also result in civil, criminal, monetary and/or non-monetary penalties, damage to our reputation, and/or the incurrence of remediation costs.

The Tax Cuts and Jobs Act in the United States (the “Tax Act”), which made significant changes to the U.S. Tax Code and affects, among other items, the company’s tax rate, previously unremitted foreign earnings and valuations of deferred tax assets and liabilities. If new guidance is issued on the Tax Act, depending on the circumstances, this (and other) tax legislation could adversely affect our results of operations.

These developments, and other potential future legislation and regulations, as well as the factors in the strict regulatory environment, including the growing international regulation of privacy rights, may also adversely affect the customers to which, and the markets into which, we sell our products, and increase our costs and otherwise negatively affect our business, reputation, results of operations and financial condition, including in ways that cannot yet be foreseen.

Risks associated with the disruption of manufacturing operations could adversely affect profitability or competitive position.

We manufacture a significant portion of the products we sell. Any prolonged disruption in the operations of our existing manufacturing facilities, whether due to technical or labor difficulties, facility consolidation or closure actions, lack of raw material or component availability, destruction of or damage to any facility (as a result of natural disasters, weather events, use and storage of hazardous materials, acts of war, sabotage or terrorism, or other events), or other reasons, could have a material adverse effect on our business, financial condition, results of operations and cash flows.

The inability to continue to introduce new products that respond to customer needs and achieve market acceptance could result in lower revenues and reduced profitability.

Sales from new products represent a significant portion of our net sales and are expected to continue to represent a significant component of our future net sales. We may not be able to compete effectively unless we continue to enhance existing products or introduce new products to the marketplace in a timely manner. Product improvements and new product introductions require significant financial and other resources, including significant planning, design, development, and testing at the technological, product and manufacturing process levels. Our competitors' new products may beat our products to market, be more effective with more features, be less expensive than our products, and/or render our products obsolete. Any new products that we develop may not receive market acceptance or otherwise generate any meaningful net sales or profits for us relative to our expectations based on, among other things, existing and anticipated investments in manufacturing capacity and commitments to fund advertising, marketing, promotional programs and research and development.

Failure to maintain effective distribution of products and services could adversely impact revenue, gross margin and profitability.

We use a variety of distribution methods to sell our products and services. Successfully managing the interaction of our distribution efforts to reach various potential customer segments for our products and services is a complex process. Moreover, since each distribution method has distinct risks, costs and gross margins, our failure to implement the most advantageous balance in the delivery model for our products and services could adversely affect our revenue, gross margins and profitability.

The global tool, equipment, and diagnostics and repair information industries are competitive.

We face strong competition in all of our market segments. Price competition in our various industries is intense and pricing pressures from competitors and customers continue to increase. In general, as a manufacturer and marketer of premium products and services, the expectations of Snap-on's customers and its franchisees are high and continue to increase. Any inability to maintain customer satisfaction could diminish Snap-on's premium image and reputation and could result in a lessening of our ability to command premium pricing. We expect that the level of competition will remain high in the future, which could limit our ability to maintain or increase market share or profitability.

Product liability claims and litigation could affect our business, reputation, financial condition, results of operations and cash flows.

The products that we design and/or manufacture, and/or the services we provide, can lead to product liability claims or other legal claims being filed against us. To the extent that plaintiffs are successful in showing that a defect in a product's design, manufacture or warnings led to personal injury or property damage, or that our provision of services resulted in similar injury or damage, we may be subject to claims for damages. Although we are insured for damages above a certain amount, we bear the costs and expenses associated with defending claims, including frivolous lawsuits, and are responsible for damages up to the insurance retention amount. In addition to claims concerning individual products, as a manufacturer, we can be subject to costs, potential negative publicity and lawsuits related to product recalls, which could adversely impact our results of operations and damage our reputation.

Legal disputes could adversely affect our business, reputation, financial condition, results of operations and cash flows.

From time to time we are subject to legal disputes that are being litigated and/or settled in the ordinary course of business. Disputes or future lawsuits could result in the diversion of management's time and attention away from business operations. Additionally, negative developments with respect to legal disputes and the costs incurred in defending ourselves, even if successful, could have an adverse impact on the company and its reputation. Successful outcomes, at trial or on appeal, can never be assured. Adverse outcomes or settlements could also require us to pay damages, potentially in excess of amounts reserved, or incur liability for other remedies that could have a material adverse effect on our business, reputation, financial condition, results of operations and cash flows.

Failure to adequately protect intellectual property, or claims of infringement, could adversely affect our business, reputation, financial condition, results of operations and cash flows.

Intellectual property rights are an important and integral component of our business and failure to obtain or maintain adequate protection of our intellectual property rights for any reason could have a material adverse effect on our business. We attempt to protect our intellectual property rights through a combination of patent, trademark, copyright and trade secret laws, as well as licensing agreements and third-party nondisclosure and assignment agreements. In addition, we have been, and in the future may be, subject to claims of intellectual property infringement against us by third parties; whether or not these claims have merit, we could be required to expend significant resources in defense of those claims. Adverse determinations in a judicial or administrative proceeding or via a settlement could prevent us from manufacturing and selling our products, prevent us from stopping others from manufacturing and selling competing products, and/or result in payments for damages. In the event of an infringement claim, we may also be required to spend significant resources to develop alternatives or obtain licenses, which may not be available on reasonable terms or at all, and may reduce our sales and disrupt our production. Failure to obtain or maintain adequate protection of our intellectual property rights for any reason could have a material adverse effect on our business.

Failure to achieve expected investment returns on pension plan assets, as well as changes in interest rates or plan demographics, could adversely impact our results of operations, financial condition and cash flows.

Snap-on sponsors various defined benefit pension plans (the “pension plans”). The assets of the pension plans are diversified in an attempt to mitigate the risk of a large loss. Required funding for the company’s domestic defined benefit pension plans is determined in accordance with guidelines set forth in the federal Employee Retirement Income Security Act (“ERISA”); foreign defined benefit pension plans are funded in accordance with local statutes or practice. Additional contributions to enhance the funded status of the pension plans can be made at the company’s discretion. However, there can be no assurance that the value of the pension plan assets, or the investment returns on those plan assets, will be sufficient to meet the future benefit obligations of such plans. In addition, during periods of adverse investment market conditions and declining interest rates, the company may be required to make additional cash contributions to the pension plans that could reduce our financial flexibility. Changes in plan demographics, including an increase in the number of retirements or changes in life expectancy assumptions, may also increase the costs and funding requirements of the obligations related to the company’s pension plans.

Our pension plan obligations are affected by changes in market interest rates. Significant fluctuations in market interest rates have added, and may further add, volatility to our pension plan obligations. In periods of declining market interest rates, our pension plan obligations generally increase; in periods of increasing market interest rates, our pension plan obligations generally decrease. While our plan assets are broadly diversified, there are inherent market risks associated with investments; if adverse market conditions occur, our plan assets could incur significant or material losses. Since we may need to make additional contributions to address changes in obligations and/or a loss in plan assets, the combination of declining market interest rates, past or future plan asset investment losses, and/or changes in plan demographics could adversely impact our results of operations, financial condition and cash flows.

The company’s pension plan expense is comprised of the following factors: (i) service cost; (ii) interest on projected benefit obligations; (iii) expected return on plan assets; (iv) the amortization of prior service costs and credits; (v) effects of actuarial gains and losses; and (vi) settlement/curtailment costs, when applicable. The accounting for pensions involves the estimation of a number of factors that are highly uncertain. Certain factors, such as the interest on projected benefit obligations and the expected return on plan assets, are impacted by changes in market interest rates and the value of plan assets. A significant decrease in market interest rates and a decrease in the fair value of plan assets would increase net pension expense and may adversely affect the company’s future results of operations. See Note 11 to the Consolidated Financial Statements for further information on the company’s pension plans.

Foreign operations are subject to political, economic, currency exchange and other risks that could adversely affect our business, financial condition, results of operations and cash flows.

Approximately 31% of our revenues in 2019 were generated outside of the United States. Future growth rates and success of our business depends in large part on continued growth in our non-U.S. operations, including growth in emerging markets and critical industries. Numerous risks and uncertainties affect our non-U.S. operations. These risks and uncertainties include political, economic and social instability, such as acts of war, civil disturbance or acts of terrorism, local labor conditions, Brexit-related developments, trade relations with China, changes in government policies and regulations, including imposition or increases in withholding and other taxes on remittances and other payments by international subsidiaries, as well as the exposure to liabilities under anti-corruption laws in various countries, such as the U.S. Foreign Corrupt Practices Act, currency volatility, transportation delays or interruptions, sovereign debt uncertainties and difficulties in enforcement of contract and intellectual property rights, as well as natural disasters. Should the economic environment in our non-U.S. markets deteriorate from current levels, our results of operations and financial position could be materially impacted, including as a result of the effects of potential impairment write-downs of goodwill and/or other intangible assets related to these businesses.

The reporting currency for Snap-on’s consolidated financial statements is the U.S. dollar. Certain of the company’s assets, liabilities, expenses and revenues are denominated in currencies other than the U.S. dollar. In preparing Snap-on’s Consolidated Financial Statements, those assets, liabilities, expenses and revenues are translated into U.S. dollars at applicable exchange rates. Increases or decreases in exchange rates between the U.S. dollar and other currencies affect the U.S. dollar value of those items, as reflected in the Consolidated Financial Statements. Substantial fluctuations in the value of the U.S. dollar could have a significant impact on the company’s financial condition and results of operations.

We are also affected by changes in inflation rates and interest rates. Additionally, cash generated in certain non-U.S. jurisdictions may be difficult to repatriate to the United States in a tax-efficient manner. Our foreign operations are also subject to other risks and challenges, such as the need to staff and manage diverse workforces, respond to the needs of multiple national and international marketplaces, and differing business climates and cultures in various countries.

We may not successfully integrate businesses we acquire, which could have an adverse impact on our business, financial condition, results of operations and cash flows.

The pursuit of growth through acquisitions, including participation in joint ventures, involves significant risks that could have a material adverse effect on our business, financial condition, results of operations and cash flows. These risks include:

- Loss of the acquired businesses’ customers;
- Inability to integrate successfully the acquired businesses’ operations;
- Inability to coordinate management and integrate and retain employees of the acquired businesses;
- Unforeseen or contingent liabilities of the acquired businesses;
- Large write-offs or write-downs, or the impairment of goodwill or other intangible assets;
- Difficulties in implementing and maintaining consistent standards, controls, procedures, policies and information systems;
- Failure to realize anticipated synergies, economies of scale or other anticipated benefits, or to maintain operating margins;
- Strain on our personnel, systems and resources, and diversion of attention from other priorities;
- Incurrence of additional debt and related interest expense; and
- The dilutive effect in the event of the issuance of additional equity securities.

The recognition of impairment charges on goodwill or other intangible assets would adversely impact our future financial condition and results of operations.

We have a substantial amount of goodwill and purchased intangible assets, almost all of which are booked in the Commercial & Industrial Group and in the Repair Systems & Information Group. We are required to perform impairment tests on our goodwill and other intangibles annually or at any time when events occur that could impact the value of our business segments. Our determination of whether impairment has occurred is based on a comparison of each of our reporting units’ fair market value with its carrying value.

Significant and unanticipated changes in circumstances, such as significant and long-term adverse changes in business climate, adverse actions by regulators, unanticipated competition, the loss of key customers, and/or changes in technology or markets, could require a provision for impairment in a future period that could substantially impact our reported earnings and reduce our consolidated net worth and shareholders' equity. Should the economic environment in these markets deteriorate, our results of operations and financial position could be materially impacted, including as a result of the effects of potential impairment write-downs of goodwill and/or other intangible assets related to these businesses.

Our operations expose us to the risk of environmental liabilities, costs, litigation and violations that could adversely affect our financial condition, results of operations and reputation.

Certain of our operations are subject to environmental laws and regulations in the jurisdictions in which they operate, which impose limitations on the discharge of pollutants into the ground, air and water and establish standards for the generation, treatment, use, storage and disposal of hazardous wastes. We must also comply with various health and safety regulations in the United States and abroad in connection with our operations. Failure to comply with any of these laws could result in civil and criminal, monetary and non-monetary penalties and damage to our reputation. In addition, we may incur costs related to remedial efforts or alleged environmental damage associated with past or current waste disposal practices. We cannot provide assurance that our costs of complying with current or future environmental protection and health and safety laws will not exceed our estimates.

The inability to successfully defend claims from taxing authorities could adversely affect our financial condition, results of operations and cash flows.

We conduct business in many countries, which requires us to interpret the income tax laws and rulings in each of those taxing jurisdictions. Due to the subjectivity of tax laws between those jurisdictions, as well as the subjectivity of factual interpretations, our estimates of income tax liabilities may differ from actual payments or assessments. Claims from taxing authorities related to these differences could have an adverse impact on our financial condition, results of operations and cash flows.

Failure to attract, retain and effectively manage qualified personnel could lead to a loss of revenue and/or profitability.

Snap-on's success depends, in part, on the efforts and abilities of its senior management team and other key employees. Their skills, experience and industry contacts significantly benefit our operations and administration. The failure to attract and retain members of our senior management team and other key employees, to effectively develop personnel and to execute succession plans could have a negative effect on our operating results. In addition, transitions of important responsibilities to new individuals inherently include the possibility of disruptions to our business and operations, which could negatively affect our business, financial condition, results of operations and cash flows.

The steps taken to restructure operations, rationalize operating footprint, lower operating expenses and achieve greater efficiencies in the supply chain could disrupt business.

We have taken steps in the past, and expect to take additional steps in the future, intended to improve customer service and drive further efficiencies and reduce costs, some of which could be disruptive to our business. These actions, collectively across our operating groups, are focused on the following:

- Continuing to invest in initiatives focused on building a strong sales and operating presence in emerging growth markets;
- Continuing to enhance service and value to our franchisees and customers;
- Continuing to implement efficiency and productivity initiatives throughout the company to drive further efficiencies and reduce costs;
- Continuing on the company's existing path to improve and transform global manufacturing and the supply chain into a market-demand-based replenishment system with lower costs;
- Continuing to invest in developing and marketing new, innovative, higher-value-added products and advanced technologies;
- Extending our products and services into additional and/or adjacent markets or to new customers; and
- Continuing to provide financing for, and grow our portfolio of, receivables within our financial services businesses.

A failure to succeed in the implementation of any or all of these actions could result in an inability to achieve our financial goals and could be disruptive to the business.

In addition, any future reductions to headcount and other cost reduction measures may result in the loss of technical expertise and could adversely affect our research and development efforts as well as our ability to meet product development schedules. Efforts to reduce components of expense could result in the recording of charges for inventory and technology-related write-offs, workforce reduction costs or other charges relating to the consolidation or closure of facilities. If we were to incur a substantial charge to further these efforts or are unable to effectively manage our cost reduction and restructuring efforts, our business, financial condition, results of operations and cash flows could be adversely affected.

Item 1B: Unresolved Staff Comments

None.

Item 2: Properties

Snap-on maintains leased and owned manufacturing, software development, warehouse, distribution, research and development and office facilities throughout the world. Snap-on believes that its facilities currently in use are suitable and have adequate capacity to meet its present and foreseeable future demand. Snap-on's facilities in the United States occupy approximately 3.8 million square feet, of which 74% is owned, including its corporate and general office facility located in Kenosha, Wisconsin. Snap-on's facilities outside the United States occupy approximately 4.6 million square feet, of which approximately 73% is owned. Certain Snap-on facilities are leased through operating and finance lease agreements. See Note 16 to the Consolidated Financial Statements for information on the company's operating and finance leases. Snap-on management continually monitors the company's capacity needs and makes adjustments as dictated by market and other conditions.

The following table provides information about our corporate headquarters and financial services operations, and each of Snap-on's principal active manufacturing locations, distribution centers and software development locations (exceeding 50,000 square feet) as of 2019 year end:

Location	Principal Property Use	Owned/Leased	Segment*
U.S. Locations:			
Elkmont, Alabama	Manufacturing	Owned	SOT
Conway, Arkansas	Manufacturing and distribution	Owned	RS&I
City of Industry, California	Manufacturing	Leased	C&I
San Diego, California	Software development	Owned	RS&I
San Jose, California	Software development	Leased	RS&I
Columbus, Georgia	Distribution	Owned	C&I
Crystal Lake, Illinois	Distribution	Owned and leased	SOT
Libertyville, Illinois	Financial services	Leased	FS
Algona, Iowa	Manufacturing and distribution	Owned and leased	SOT
Louisville, Kentucky	Manufacturing and distribution	Leased	RS&I
Olive Branch, Mississippi	Distribution	Owned	SOT
Carson City, Nevada	Distribution	Owned and leased	SOT
Murphy, North Carolina	Manufacturing and distribution	Owned and leased	C&I
Richfield, Ohio	Software development	Owned	RS&I
Robesonia, Pennsylvania	Distribution	Owned	SOT
Elizabethton, Tennessee	Manufacturing	Owned	SOT
Kenosha, Wisconsin	Distribution and corporate	Owned	SOT, C&I, RS&I
Milwaukee, Wisconsin	Manufacturing	Owned	SOT
Non-U.S. Locations:			
Santo Tome, Argentina	Manufacturing	Owned	C&I
New South Wales, Australia	Distribution and financial services	Leased	SOT, FS
Minsk, Belarus	Manufacturing	Owned	C&I
Santa Bárbara d’Oeste, Brazil	Manufacturing and distribution	Owned	RS&I
Calgary, Canada	Distribution	Leased	SOT
Mississauga, Canada	Distribution	Leased	SOT, RS&I
Beijing, China	Manufacturing and distribution	Leased	C&I
Kunshan, China	Manufacturing	Owned	C&I
Xiaoshan, China	Manufacturing	Owned	C&I
Banbury, England	Manufacturing and distribution	Owned	C&I
Bramley, England	Manufacturing	Owned	C&I
Kettering, England	Distribution and financial services	Owned and leased	SOT, C&I, FS
Sopron, Hungary	Manufacturing	Owned	RS&I
Correggio, Italy	Manufacturing	Owned	RS&I
Tokyo, Japan	Distribution	Leased	C&I
Helmond, Netherlands	Distribution	Owned	C&I
Vila do Conde, Portugal	Manufacturing	Owned	C&I
Irun, Spain	Manufacturing	Owned	C&I
Placencia, Spain	Manufacturing	Owned	C&I
Vitoria, Spain	Manufacturing and distribution	Owned	C&I
Bollnäs, Sweden	Manufacturing	Owned	C&I
Edsbyn, Sweden	Manufacturing	Owned	C&I
Kungsör, Sweden	Manufacturing and distribution	Owned	RS&I
Lidköping, Sweden	Manufacturing	Owned	C&I

* Segment abbreviations:

C&I – Commercial & Industrial Group
SOT – Snap-on Tools Group
RS&I – Repair Systems & Information Group
FS – Financial Services

Item 3: Legal Proceedings

Snap-on is involved in various legal matters that are being litigated and/or settled in the ordinary course of business. Although it is not possible to predict the outcome of these legal matters, management believes that the results of these legal matters will not have a material impact on Snap-on's consolidated financial position, results of operations or cash flows.

Item 4: Mine Safety Disclosures

Not applicable.

PART II

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

Snap-on had 54,650,224 shares of common stock outstanding as of 2019 year end. Snap-on's stock is listed on the New York Stock Exchange under the ticker symbol "SNA." At February 7, 2020, there were 4,540 registered holders of Snap-on common stock.

Issuer Purchases of Equity Securities

The following chart discloses information regarding the shares of Snap-on's common stock repurchased by the company during the fourth quarter of fiscal 2019, all of which were purchased pursuant to the Board's authorizations that the company has publicly announced. Snap-on has undertaken stock repurchases from time to time to offset dilution created by shares issued for employee and franchisee stock purchase plans, and equity plans, and for other corporate purposes, as well as when the company believes market conditions are favorable. The repurchase of Snap-on common stock is at the company's discretion, subject to prevailing financial and market conditions.

Period	Shares purchased	Average price per share	Shares purchased as part of publicly announced plans or programs	Approximate value of shares that may yet be purchased under publicly announced plans or programs*
09/29/19 to 10/26/19	80,000	$164.34	80,000	$380.9 million
10/27/19 to 11/23/19	290,000	$164.02	290,000	$354.8 million
11/24/19 to 12/28/19	65,000	$161.12	65,000	$359.6 million
Total/Average	435,000	$163.64	435,000	N/A

N/A: Not applicable

* Subject to further adjustment pursuant to the 1996 Authorization described below, as of December 28, 2019, the approximate value of shares that may yet be purchased pursuant to the outstanding Board authorizations discussed below is $359.6 million.

- In 1996, the Board authorized the company to repurchase shares of the company's common stock from time to time in the open market or in privately negotiated transactions ("the 1996 Authorization"). The 1996 Authorization allows the repurchase of up to the number of shares issued or delivered from treasury from time to time under the various plans the company has in place that call for the issuance of the company's common stock. Because the number of shares that are purchased pursuant to the 1996 Authorization will change from time to time as (i) the company issues shares under its various plans; and (ii) shares are repurchased pursuant to this authorization, the number of shares authorized to be repurchased will vary from time to time. The 1996 Authorization will expire when terminated by the Board. When calculating the approximate value of shares that the company may yet purchase under the 1996 Authorization, the company assumed a price of $166.64, $158.89 and $169.20 per share of common stock as of the end of the fiscal 2019 months ended October 26, 2019, November 23, 2019, and December 28, 2019, respectively.
- On February 14, 2019, the Board authorized the repurchase of an aggregate of up to $500 million of the company's common stock (the "2019 Authorization"). The 2019 Authorization will expire when the aggregate repurchase price limit is met, unless terminated earlier by the Board. The 2019 Authorization replaced the Board's 2017 $500 million authorization, under which $206 million of the authorization remained at the time of its replacement.

Other Purchases or Sales of Equity Securities

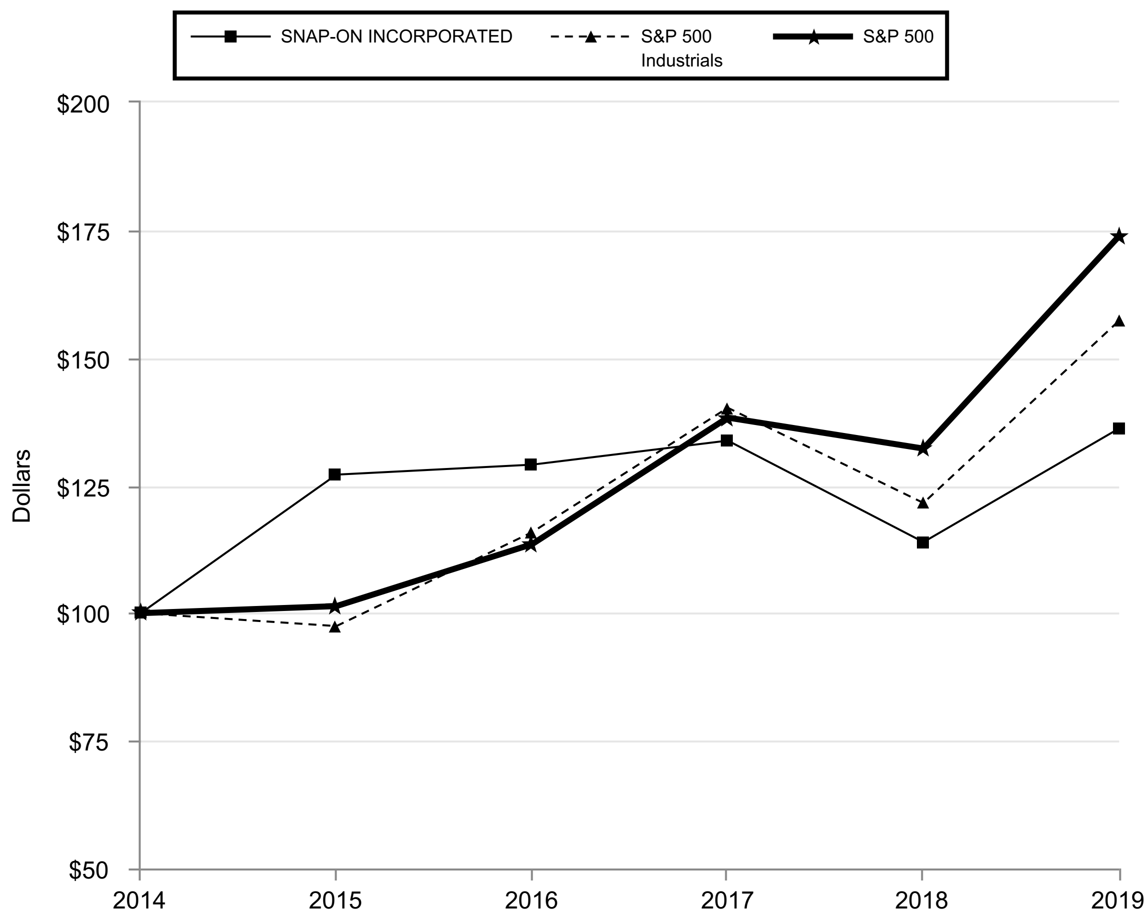
The following chart discloses information regarding transactions in shares of Snap-on's common stock by Citibank, N.A. ("Citibank") during the fourth quarter of 2019 pursuant to a prepaid equity forward agreement (the "Agreement") with Citibank that is intended to reduce the impact of market risk associated with the stock-based portion of the company's deferred compensation plans. The company's stock-based deferred compensation liabilities, which are impacted by changes in the company's stock price, increase as the company's stock price rises and decrease as the company's stock price declines. Pursuant to the Agreement, Citibank may purchase or sell shares of the company's common stock (for Citibank's account) in the market or in privately negotiated transactions. The Agreement has no stated expiration date and does not provide for Snap-on to purchase or repurchase its shares.

Citibank Sales of Snap-on Stock

Period	Shares sold	Average price per share
09/29/19 to 10/26/19	12,900	$159.81
10/27/19 to 11/23/19	2,000	$168.34
11/24/19 to 12/28/19	3,500	$169.34
Total/Average	18,400	$162.55

Five-year Stock Performance Graph

The graph below illustrates the cumulative total shareholder return on Snap-on common stock since December 31, 2014, of a $100 investment, assuming that dividends were reinvested quarterly. The graph compares Snap-on's performance to that of the Standard & Poor's 500 Industrials Index ("S&P 500 Industrials") and Standard & Poor's 500 Stock Index ("S&P 500").



Fiscal Year Ended [1]	Snap-on Incorporated	S&P 500 Industrials	S&P 500
December 31, 2014	$100.00	$100.00	$100.00
December 31, 2015	$127.13	$97.47	$101.38
December 31, 2016	$129.08	$115.85	$113.51
December 31, 2017	$133.79	$140.22	$138.29
December 31, 2018	$113.92	$121.58	$132.23
December 31, 2019	$136.18	$157.29	$173.86

(1) The company's fiscal year ends on the Saturday that is on or nearest to December 31 of each year; for ease of calculation, the fiscal year end is assumed to be December 31.

Item 6: Selected Financial Data

The selected financial data presented below has been derived from, and should be read in conjunction with, the respective historical consolidated financial statements of the company, including the notes thereto, and "Part II, Item 7: Management's Discussion and Analysis of Financial Condition and Results of Operations."

Five-year Data					
(Amounts in millions, except per share data)	2019	2018	2017	2016	2015
Results of Operations					
Net sales	$ 3,730.0	$ 3,740.7	$ 3,686.9	$ 3,430.4	$ 3,352.8
Gross profit	1,844.0	1,870.0	1,825.9	1,710.4	1,649.3
Operating expenses	1,127.6	1,144.0	1,161.3	1,048.0	1,041.3
Operating earnings before financial services	716.4	726.0	664.6	662.4	608.0
Financial services revenue	337.7	329.7	313.4	281.4	240.3
Financial services expenses	91.8	99.6	95.9	82.7	70.1
Operating earnings from financial services	245.9	230.1	217.5	198.7	170.2
Operating earnings	962.3	956.1	882.1	861.1	778.2
Interest expense	49.0	50.4	52.4	52.2	51.9
Earnings before income taxes and equity earnings	922.1	909.9	821.9	801.4	710.5
Income tax expense	211.8	214.4	250.9	244.3	221.2
Earnings before equity earnings	710.3	695.5	571.0	557.1	489.3
Equity earnings, net of tax	0.9	0.7	1.2	2.5	1.3
Net earnings	711.2	696.2	572.2	559.6	490.6
Net earnings attributable to noncontrolling interests	(17.7)	(16.3)	(14.5)	(13.2)	(11.9)
Net earnings attributable to Snap-on	693.5	679.9	557.7	546.4	478.7
Financial Position					
Cash and cash equivalents	$ 184.5	$ 140.9	$ 92.0	$ 77.6	$ 92.8
Trade and other accounts receivable – net	694.6	692.6	675.6	598.8	562.5
Finance receivables – net (current)	530.1	518.5	505.4	472.5	447.3
Contract receivables – net (current)	100.7	98.3	96.8	88.1	82.1
Inventories – net	760.4	673.8	638.8	530.5	497.8
Property and equipment – net	521.5	495.1	484.4	425.2	413.5
Long-term finance receivables – net	1,103.5	1,074.4	1,039.2	934.5	772.7
Long-term contract receivables – net	360.1	344.9	322.6	286.7	266.6
Total assets*	5,693.5	5,373.1	5,249.1	4,723.2	4,331.1
Notes payable and current maturities of long-term debt	202.9	186.3	433.2	301.4	18.4
Accounts payable	198.5	201.1	178.2	170.9	148.3
Long-term debt	946.9	946.0	753.6	708.8	861.7
Total debt	1,149.8	1,132.3	1,186.8	1,010.2	880.1
Total shareholders' equity attributable to Snap-on	3,409.1	3,098.8	2,953.9	2,617.2	2,412.7
Common Share Summary					
Weighted-average shares outstanding – diluted	55.9	57.3	58.6	59.4	59.1
Net earnings per share attributable to Snap-on:					
Basic	$ 12.59	$ 12.08	$ 9.72	$ 9.40	$ 8.24
Diluted	12.41	11.87	9.52	9.20	8.10
Cash dividends paid per share	3.93	3.41	2.95	2.54	2.20
Shareholders' equity per basic share	61.87	55.04	51.46	45.05	41.53

* In 2019, Snap-on adopted ASU 2016-02, *Leases (Topic 842)*, which requires the recognition of lease assets and lease liabilities on the balance sheet. Topic 842 was applied using the modified retrospective approach; as such, prior periods have not been adjusted to reflect this adoption. See Note 1 and Note 16 to the Consolidated Financial Statements for further information on the effect of the adoption of this ASU.

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

Management Overview

We believe our 2019 operating results demonstrate our commitment to providing repeatability and reliability to a wide range of professional customers performing critical tasks in workplaces of consequence, while managing headwinds in certain end markets and geographies, particularly in Europe. Leveraging capabilities already demonstrated in the automotive repair arena, our "coherent growth" strategy focuses on developing and expanding our professional customer base, not only in automotive repair, but in adjacent markets, additional geographies and other areas, including in critical industries, where the cost and penalties for failure can be high. Snap-on's value proposition of making work easier for serious professionals is an ongoing strength as we move forward along our runways for coherent growth:

- Enhancing the franchise network, where we continued to focus on helping our franchisees extend their reach through innovative selling processes and productivity initiatives that break the traditional time and space barriers inherent in a mobile van;
- Expanding with repair shop owners and managers, where we continued to make progress in connecting with customers and translating the resulting insights into innovation that solves specific challenges in the repair facility;
- Further extending to critical industries, where we continued to grow our lines of products customized for specific industries, including through further integration of acquisitions; and
- Building in emerging markets, where we continued to build manufacturing capacity, focused product lines and distribution capability.

Our strategic priorities and plans for 2020 involve continuing to build on our Snap-on Value Creation Processes – our suite of strategic principles and processes we employ every day designed to create value, and employed in the areas of safety, quality, customer connection, innovation and rapid continuous improvement ("Rapid Continuous Improvement" or "RCI"). We expect to continue to deploy these processes in our existing operations as well as into our recently acquired businesses.

Snap-on's RCI initiatives employ a structured set of tools and processes across multiple businesses and geographies intended to eliminate waste and improve operations. Savings from Snap-on's RCI initiatives reflect benefits from a wide variety of ongoing efficiency, productivity and process improvements, including savings generated from product design cost reductions, improved manufacturing line set-up and change-over practices, lower-cost sourcing initiatives and facility consolidations. Unless individually significant, it is not practicable to disclose each RCI activity that generated savings and/or segregate RCI savings embedded in sales volume increases.

Our global financial services operations continue to serve a significant strategic role in offering financing options to our franchisees, to their customers, and to customers in other parts of our business. We expect that our global financial services business, which includes both Snap-on Credit LLC ("SOC") in the United States and our other international finance subsidiaries, will continue to be a meaningful contributor to our operating earnings going forward.

Snap-on has significant international operations and is subject to risks inherent with foreign operations, including foreign currency translation fluctuations.

Recent Acquisitions

On August 7, 2019, Snap-on acquired Cognitran Limited ("Cognitran") for a preliminary cash purchase price of $30.4 million (or $29.4 million, net of cash acquired). The preliminary purchase price is subject to change based upon finalization of a working capital adjustment that is expected to be completed in the first quarter of 2020. Cognitran, based in Chelmsford, U.K., specializes in flexible, modular and highly scalable "Software as a Service" (SaaS) products for Original Equipment Manufacturer ("OEM") customers and their dealers, focused on the creation and delivery of service, diagnostics, parts and repair information to the OEM dealers and connected vehicle platforms. The acquisition of Cognitran enhanced and expanded Snap-on's capabilities in providing shop efficiency solutions through integrated upstream services to OEM customers in automotive, heavy duty, agricultural and recreational applications.

On April 2, 2019, Snap-on acquired Power Hawk Technologies, Inc. ("Power Hawk") for a cash purchase price of $7.9 million. Power Hawk, based in Rockaway, New Jersey, designs, manufactures and distributes rescue tools and related equipment for a variety of military, governmental, fire and rescue, and emergency operations. The acquisition of the Power Hawk product line complemented and increased Snap-on's existing product offering and broadened its established capabilities in serving critical industries.

On January 25, 2019, Snap-on acquired substantially all of the assets of TMB GeoMarketing Limited ("TMB") for a cash purchase price of $1.3 million. TMB, based in Dorking, U.K., designs planning software used by OEMs to optimize dealer locations and manage the performance of dealer outlets. The acquisition of TMB extended Snap-on's product line in its core dealer network solutions business.

On January 31, 2018, Snap-on acquired substantially all of the assets of George A. Sturdevant, Inc. (d/b/a Fastorq) for a cash purchase price of $3.0 million. Fastorq, based in New Caney, Texas, designs, assembles and distributes hydraulic torque and hydraulic tensioning products for use in critical industries. The acquisition of the Fastorq product line complemented and increased Snap-on's existing torque product offering and broadened its established capabilities in serving in critical industries.

For segment reporting purposes, the results of operations and assets of Cognitran and TMB have been included in the Repair Systems & Information Group since the respective acquisition dates, and the results of operations and assets of Power Hawk and Fastorq have been included in the Commercial & Industrial Group since the respective acquisition dates.

Pro forma financial information has not been presented for any of these acquisitions as the net effects, individually and collectively, were neither significant nor material to Snap-on's results of operations or financial position.

Fiscal 2018 as Compared to Fiscal 2017

A discussion regarding our financial condition and results of operations for fiscal 2018 compared to fiscal 2017 can be found under "Part II, Item 7: Management's Discussion and Analysis of Financial Condition and Results of Operations," in our Annual Report on the Form 10-K for the fiscal year ended December 29, 2018, which was filed with the SEC on February 14, 2019, and is available on the SEC's website at www.sec.gov as well as in the "Investors" section of our corporate website at www.snapon.com.

Non-GAAP Measures

References in this Management's Discussion and Analysis of Financial Condition and Results of Operations to "organic sales" refer to sales from continuing operations calculated in accordance with generally accepted accounting principles in the United States of America ("GAAP"), excluding acquisition-related sales and the impact of foreign currency translation. Management evaluates the company's sales performance based on organic sales growth, which primarily reflects growth from the company's existing businesses as a result of increased output, customer base and geographic expansion, new product development and/or pricing, and excludes sales contributions from acquired operations the company did not own as of the comparable prior-year reporting period. The company's organic sales disclosures also exclude the effects of foreign currency translation as foreign currency translation is subject to volatility that can obscure underlying business trends. Management believes that the non-GAAP financial measure of organic sales is meaningful to investors as it provides them with useful information to aid in identifying underlying growth trends in our businesses and facilitating comparisons of our sales performance with prior periods.

Summary of Consolidated Performance

Consolidated net sales of $3,730.0 million in 2019 decreased $10.7 million, or 0.3%, from 2018 levels, reflecting a $45.4 million, or 1.2%, increase in organic sales and $7.5 million of acquisition-related sales, more than offset by $63.6 million of unfavorable foreign currency translation.

Operating earnings before financial services of $716.4 million in 2019, including $18.5 million of unfavorable foreign currency effects and an $11.6 million benefit from the settlement of a patent-related litigation matter that was being appealed (the "2019 legal settlement"), decreased $9.6 million, or 1.3%, as compared to $726.0 million last year. Fiscal 2018 results included a $4.3 million benefit related to a legal settlement in an employment-related litigation matter that was being appealed (the "2018 legal settlement"). As a percentage of net sales, operating earnings before financial services of 19.2% in 2019 compared to 19.4% last year.

Operating earnings of $962.3 million in 2019, including $19.8 million of unfavorable foreign currency effects and an $11.6 million benefit for the 2019 legal settlement, increased $6.2 million, or 0.6% from $956.1 million last year. In 2018, operating earnings included a $4.3 million benefit from the 2018 legal settlement. As a percentage of revenues, operating earnings of 23.7% compared to 23.5% last year.

Net earnings attributable to Snap-on in 2019 of $693.5 million, or $12.41 per diluted share, increased $13.6 million, or $0.54 per diluted share, from $679.9 million, or $11.87 per diluted share, in 2018. In 2019, net earnings attributable to Snap-on included $8.7 million, or $0.15 per diluted share, for the after-tax benefit related to the 2019 legal settlement. Net earnings attributable to Snap-on in 2018 included $3.2 million, or $0.06 per diluted share, for the after-tax benefit related to the 2018 legal settlement, as well as a $4.1 million, or $0.07 per diluted share, after-tax net gain associated with a treasury lock settlement of $10.0 million related to the issuance of debt, partially offset by $5.9 million of expense related to the early extinguishment of debt (collectively, the "net debt items"), partially offset by $3.9 million, or $0.07 per diluted share, of tax expense for guidance associated with the U.S. Tax Cuts and Jobs Act (the "Tax Act") or ("tax charge").

Impact of the Tax Act

On December 22, 2017, the U.S. government passed the Tax Act. The Tax Act made broad and complex changes to the U.S. tax code, including, but not limited to: (i) reducing the U.S. federal corporate tax rate to 21 percent; (ii) requiring companies to pay a one-time transition tax on certain unremitted earnings of foreign subsidiaries; and (iii) bonus depreciation that will allow for full expensing of qualified property.

The Tax Act also established new tax laws that include, but are not limited to: (i) the reduction of the U.S. federal corporate tax rate discussed above; (ii) a general elimination of U.S. federal income taxes on dividends from foreign subsidiaries; (iii) a new provision designed to tax global intangible low-taxed income ("GILTI"); (iv) the repeal of the domestic production activity deductions; (v) limitations on the deductibility of certain executive compensation; (vi) limitations on the use of foreign tax credits to reduce the U.S. income tax liability; and (vii) a new provision that allows a domestic corporation an immediate deduction for a portion of its foreign derived intangible income ("FDII").

The Securities and Exchange Commission staff issued Staff Accounting Bulletin ("SAB") 118, which provided guidance on accounting for the tax effects of the Tax Act, for the company's year ended December 30, 2017. SAB 118 provided a measurement period that should not extend beyond one year from the Tax Act enactment date for companies to complete the related accounting under Accounting Standards Codification ("ASC") 740, *Accounting for Income Taxes*. In accordance with SAB 118, a company must reflect the income tax effects of those aspects of the Tax Act for which the accounting under ASC 740 is complete. To the extent that a company's accounting for a certain income tax effect of the Tax Act is incomplete, but it is able to determine a reasonable estimate, it must record a provisional estimate in the financial statements. If a company cannot determine a provisional estimate to be included in the financial statements, it should continue to apply ASC 740 on the basis of the provisions of the tax laws that were in effect immediately before the enactment of the Tax Act.

The company's accounting for certain elements of the Tax Act was incomplete as of December 30, 2017. However, the company was able to make reasonable estimates of the effects and, therefore, recorded provisional estimates for these items. In connection with its initial analysis of the impact of the Tax Act, the company recorded a provisional discrete net tax expense of $7.0 million in the fiscal year ended December 31, 2017. This provisional estimate consisted of a net expense of $13.7 million for the one-time transition tax and a net benefit of $6.7 million related to revaluation of deferred tax assets and liabilities, caused by the new lower corporate tax rate. To determine the transition tax, the company determined the amount of post-1986 accumulated earnings and profits of the relevant subsidiaries, as well as the amount of non-U.S. income taxes paid on such earnings. While the company was able to make a reasonable estimate of the transition tax for 2017, it continued to gather additional information to more precisely compute the final amount reported on its 2017 U.S. federal tax return which was filed in October 2018. The actual transition tax was $8.3 million greater than the company's initial estimate and was included in income tax expense for 2018. Likewise, while the company was able to make a reasonable estimate of the impact of the reduction to the corporate tax rate, it was affected by other analyses related to the Tax Act, including, but not limited to, the state tax effect of adjustments made to federal temporary differences. During 2018, the company recorded additional net tax benefits of $4.4 million attributable to pension contributions made in 2018 that were deductible for 2017 at the higher 35% federal tax rate and other changes to the 2017 tax provision related to the Tax Act and subsequently-issued tax guidance. Due to the complexity of the new GILTI tax rules, the company continued to evaluate this provision of the Tax Act and the application of ASC 740 throughout 2018. Under GAAP, the company is allowed to make an accounting policy choice to either: (i) treat taxes due on future U.S. inclusions in taxable income related to GILTI as a current-period expense when incurred (the "period cost method"); or (ii) factor in such amounts into a company's measurement of its deferred taxes (the "deferred method"). The company selected to apply the "period cost method" to account for the new GILTI tax, and treated it as a current-period expense for 2019 and 2018.

Summary of Segment Performance

The **Commercial & Industrial Group** consists of business operations serving a broad range of industrial and commercial customers worldwide, including customers in the aerospace, natural resources, government, power generation, transportation and technical education market segments (collectively, "critical industries"), primarily through direct and distributor channels. Segment net sales of $1,345.7 million in 2019 increased $2.4 million, or 0.2%, from 2018 levels, reflecting a $32.2 million, or 2.5%, organic sales gain and $3.1 million of acquisition-related sales, mostly offset by $32.9 million of unfavorable foreign currency translation. The organic sales increase primarily includes a high single-digit gain in the segment's power tools operations, a mid single-digit gain in the specialty tools business and a low single-digit gain in sales to customers in critical industries. Operating earnings of $188.7 million in 2019, decreased $10.6 million, or 5.3%, from 2018 levels, primarily due to $3.3 million of unfavorable foreign currency effects, increased sales in lower gross margin businesses and higher material and other costs, partially offset by benefits from the company's RCI initiatives.

The Commercial & Industrial Group intends to continue building on the following strategic priorities in 2020:

- Continuing to invest in emerging market growth initiatives;
- Expanding our business with existing customers and reaching new customers in critical industries and other market segments;
- Broadening our product offering designed particularly for critical industry segments;
- Increasing our customer-connection-driven understanding of work across multiple industries;
- Investing in innovation that, guided by that understanding of work, delivers an ongoing stream of productivity-enhancing custom engineered solutions; and
- Continuing to reduce structural and operating costs, as well as improve efficiencies, through RCI initiatives.

The **Snap-on Tools Group** consists of business operations primarily serving vehicle service and repair technicians through the company's worldwide mobile tool distribution channel. Segment net sales of $1,612.9 million in 2019 decreased $0.9 million, or 0.1%, from 2018 levels, reflecting a $14.7 million, or 0.9%, organic sales gain, more than offset by $15.6 million of unfavorable foreign currency translation. The organic sales increase reflects a low single-digit increase in the segment's U.S. franchise operations, partially offset by a low single-digit decline in the segment's international operations. Operating earnings of $245.8 million in 2019 decreased $18.4 million, or 7.0%, from 2018 levels primarily due to $11.3 million of unfavorable foreign currency effects and higher field support investments.

While sales challenges existed in certain geographies throughout 2019, the Snap-on Tools Group remained focused on its fundamental, strategic initiatives to strengthen the franchise network and enhance franchisee profitability. In 2020, the Snap-on Tools Group intends to continue these initiatives, with specific focus on the following:

- Continuing to improve franchisee satisfaction, productivity, profitability and commercial health;
- Developing new programs and products to expand market coverage, reaching new technician customers and increasing penetration with existing customers;
- Increasing investment in new product innovation and development; and
- Increasing customer service levels and productivity in back office support functions, manufacturing and the supply chain through RCI initiatives and investment.

By focusing on these areas, we believe that Snap-on, as well as its franchisees, will have the opportunity to continue to serve customers more effectively, more profitably and with improved satisfaction.

The **Repair Systems & Information Group** consists of business operations serving other professional vehicle repair customers worldwide, primarily owners and managers of independent repair shops and OEM dealerships through direct and distributor channels. Segment net sales of $1,334.5 million in 2019 compared to $1,334.4 million in 2018, reflecting a $15.1 million, or 1.1%, organic sales gain and $4.4 million of acquisition-related sales, mostly offset by $19.4 million of unfavorable foreign currency translation. The organic sales increase primarily includes low single-digit gains in sales to OEM dealerships and in sales of diagnostic and repair information products to independent repair shop owners and managers. Operating earnings of $342.7 million in 2019, including $3.9 million of unfavorable foreign currency effects, increased $0.1 million from 2018 levels.

The Repair Systems & Information Group intends to focus on the following strategic priorities in 2020:

- Expanding the product offering with new products and services, thereby providing more to sell to repair shop owners and managers;
- Continuing software and hardware upgrades to further improve functionality, performance and efficiency;
- Leveraging integration of software solutions;
- Continuing productivity advancements through RCI initiatives and leveraging of resources; and
- Increasing penetration in geographic markets, including emerging markets.

Financial Services revenue was $337.7 million in 2019 and $329.7 million in 2018; originations of $1,031.8 million in 2019 decreased $25.7 million, or 2.4%, from 2018 levels. In 2019, operating earnings from financial services of $245.9 million, including $1.3 million of unfavorable foreign currency effects, increased $15.8 million, or 6.9%, from $230.1 million last year, primarily reflecting the growth of the portfolio and improved portfolio performance, which resulted in lower provisions for credit losses. In recent years, Snap-on has grown its financial services portfolio by providing financing for new finance and contract receivables originated by our global financial services operations.

Financial Services intends to focus on the following strategic priorities in 2020:

- Delivering financial products and services that attract and sustain profitable franchisees and support Snap-on's strategies for expanding market coverage and penetration;
- Improving productivity levels and ensuring high quality in all financial products and processes through the use of RCI initiatives; and
- Maintaining healthy portfolio performance levels.

Cash Flows

Net cash provided by operating activities of $674.6 million in 2019 decreased $89.9 million from $764.5 million in 2018. The $89.9 million decrease is primarily due to $110.8 million from net changes in operating assets and liabilities, partially offset by $15.0 million of higher net earnings.

Net cash used by investing activities of $222.1 million in 2019 included additions to finance receivables of $841.9 million, partially offset by collections of $754.3 million, as well as a total of $38.6 million (net of $1.0 million of cash acquired) for the acquisitions of TMB, Power Hawk and Cognitran. Net cash used by investing activities of $210.2 million in 2018 included additions to finance receivables of $865.6 million, partially offset by collections of $747.7 million, as well as a total of $3.0 million for the acquisition of Fastorq. Capital expenditures in 2019 and 2018 totaled $99.4 million and $90.9 million, respectively. Capital expenditures in both years included continued investments to support the company's execution of its strategic growth initiatives and Value Creation Processes around safety, quality, customer connection, innovation and RCI.

Net cash used by financing activities of $409.4 million in 2019 included $238.4 million for the repurchase of 1,495,000 shares of Snap-on's common stock and $216.6 million for dividend payments to shareholders, partially offset by $51.4 million of proceeds from stock purchase and option plan exercises and $17.6 million of net proceeds from other short-term borrowings. Net cash used by financing activities of $502.2 million in 2018 included repayments of $250 million of the unsecured 4.25% notes, due January 16, 2018 (the "2018 Notes"), at maturity, and $200 million of the unsecured 6.70% notes that were scheduled to mature on March 1, 2019 (the "2019 Notes"), as well as a $7.8 million loss on early extinguishment of debt. These amounts were partially offset by Snap-on's sale, on February 20, 2018, of $400 million of the unsecured 4.10% notes that mature on March 1, 2048 (the "2048 Notes") at a discount, from which Snap-on received $395.4 million of net proceeds, reflecting $3.5 million of transaction costs. Net cash used by financing activities in 2018 also included $284.1 million for the repurchase of 1,769,000 shares of Snap-on's common stock, and $192.0 million for dividend payments to shareholders, partially offset by $55.5 million of proceeds from stock purchase and option plan exercises and $4.9 million of proceeds from a net increase in notes payable and other short-term borrowings.

Fiscal Year

Snap-on's fiscal year ends on the Saturday that is on or nearest to December 31. Unless otherwise indicated, references in this Management's Discussion and Analysis of Financial Condition and Results of Operations to "fiscal 2019" or "2019" refer to the fiscal year ended December 28, 2019; references to "fiscal 2018" or "2018" refer to the fiscal year ended December 29, 2018; and references to "fiscal 2017" or "2017" refer to the fiscal year ended December 30, 2017. References in this document to 2019, 2018 and 2017 year end refer to December 28, 2019, December 29, 2018, and December 30, 2017, respectively.

Snap-on's 2019, 2018 and 2017 fiscal years each contained 52 weeks of operating results.

Results of Operations

2019 vs. 2018

Results of operations for 2019 and 2018 are as follows:

(Amounts in millions)	2019		2018		Change	
Net sales	$ 3,730.0	100.0 %	$ 3,740.7	100.0 %	$ (10.7)	(0.3)%
Cost of goods sold	(1,886.0)	(50.6)%	(1,870.7)	(50.0)%	(15.3)	(0.8)%
Gross profit	1,844.0	49.4 %	1,870.0	50.0 %	(26.0)	(1.4)%
Operating expenses	(1,127.6)	(30.2)%	(1,144.0)	(30.6)%	16.4	1.4 %
Operating earnings before financial services	716.4	19.2 %	726.0	19.4 %	(9.6)	(1.3)%
Financial services revenue	337.7	100.0 %	329.7	100.0 %	8.0	2.4 %
Financial services expenses	(91.8)	(27.2)%	(99.6)	(30.2)%	7.8	7.8 %
Operating earnings from financial services	245.9	72.8 %	230.1	69.8 %	15.8	6.9 %
Operating earnings	962.3	23.7 %	956.1	23.5 %	6.2	0.6 %
Interest expense	(49.0)	(1.2)%	(50.4)	(1.2)%	1.4	2.8 %
Other income (expense) – net	8.8	0.2 %	4.2	0.1 %	4.6	NM
Earnings before income taxes and equity earnings	922.1	22.7 %	909.9	22.4 %	12.2	1.3 %
Income tax expense	(211.8)	(5.2)%	(214.4)	(5.3)%	2.6	1.2 %
Earnings before equity earnings	710.3	17.5 %	695.5	17.1 %	14.8	2.1 %
Equity earnings, net of tax	0.9	—	0.7	—	0.2	28.6 %
Net earnings	711.2	17.5 %	696.2	17.1 %	15.0	2.2 %
Net earnings attributable to noncontrolling interests	(17.7)	(0.5)%	(16.3)	(0.4)%	(1.4)	(8.6)%
Net earnings attributable to Snap-on Inc.	$ 693.5	17.0 %	$ 679.9	16.7 %	$ 13.6	2.0 %

NM: Not meaningful

Percentage Disclosure: All income statement line item percentages below "Operating earnings from financial services" are calculated as a percentage of the sum of Net sales and Financial services revenue.

Net sales in 2019 decreased $10.7 million, or 0.3%, from 2018 levels, reflecting a $45.4 million, or 1.2%, organic sales gain and $7.5 million of acquisition-related sales, more than offset by $63.6 million of unfavorable foreign currency translation.

Gross profit in 2019 decreased $26.0 million from 2018. Gross margin (gross profit as a percentage of net sales) of 49.4% in 2019 decreased 60 basis points (100 basis points ("bps") equals 1.0 percent) from 50.0% last year primarily due to 20 bps of unfavorable foreign currency effects, increased sales in lower gross margin businesses and higher material and other costs, partially offset by benefits from the company's RCI initiatives.

Operating expenses in 2019, including an $11.6 million benefit from the 2019 legal settlement in the first quarter, decreased $16.4 million compared to 2018. Fiscal 2018 operating expenses included a $4.3 million benefit in the fourth quarter from the 2018 legal settlement. The operating expense margin (operating expenses as a percentage of net sales) of 30.2% in 2019 improved 40 bps from 30.6% last year primarily due to a net 20 bps incremental benefit from the legal settlements and savings from RCI initiatives.

Operating earnings before financial services in 2019, including $18.5 million of unfavorable foreign currency effects and an $11.6 million benefit from the 2019 legal settlement, decreased $9.6 million, or 1.3%, as compared to last year, which included a $4.3 million benefit from the 2018 legal settlement. As a percentage of net sales, operating earnings before financial services of 19.2%, including 20 bps of unfavorable foreign currency effects, compared to 19.4% last year.

Financial services revenue in 2019 increased $8.0 million from last year. Financial services operating earnings, including $1.3 million of unfavorable foreign currency effects in 2019, increased $15.8 million, or 6.9%, as compared to last year.

Operating earnings in 2019, including $19.8 million of unfavorable foreign currency effects and an $11.6 million benefit from the 2019 legal settlement, increased $6.2 million, or 0.6%, from last year. Fiscal 2018 results included a $4.3 million benefit from the 2018 legal settlement. As a percentage of revenues, operating earnings of 23.7%, including 10 bps of unfavorable foreign currency effects, compared to 23.5% last year.

Interest expense in 2019 decreased $1.4 million from last year. See Note 9 to the Consolidated Financial Statements for information on Snap-on's debt and credit facilities.

Other income (expense) – net includes net gains and losses associated with hedging and currency exchange rate transactions, non-service components of net periodic benefit costs, and interest income. Other income (expense) - net in fiscal 2018 also includes a net gain of $5.5 million for the net debt items. See Note 17 to the Consolidated Financial Statements for information on other income (expense) – net.

Snap-on's effective income tax rate on earnings attributable to Snap-on was 23.4% in 2019 as compared to 24.0% in 2018, which included 50 bps for the tax charge related to the implementation of the Tax Act. See Note 8 to the Consolidated Financial Statements for information on income taxes.

Net earnings attributable to Snap-on in 2019 of $693.5 million, or $12.41 per diluted share, increased $13.6 million, or $0.54 per diluted share, from $679.9 million, or $11.87 per diluted share, in 2018. In 2019, net earnings attributable to Snap-on included an $8.7 million, or $0.15 per diluted share, after-tax benefit related to the 2019 legal settlement. In 2018, net earnings attributable to Snap-on included a $3.2 million, or $0.06 per diluted share, after-tax benefit related to the 2018 legal settlement, as well as a $4.1 million, or $0.07 per diluted share, benefit from the after-tax net debt items, and $3.9 million, or $0.07 per diluted share, for the tax charge.

Segment Results

Snap-on's business segments are based on the organization structure used by management for making operating and investment decisions and for assessing performance. Snap-on's reportable business segments are: (i) the Commercial & Industrial Group; (ii) the Snap-on Tools Group; (iii) the Repair Systems & Information Group; and (iv) Financial Services. The Commercial & Industrial Group consists of business operations serving a broad range of industrial and commercial customers worldwide, including customers in the aerospace, natural resources, government, power generation, transportation and technical education market segments, primarily through direct and distributor channels. The Snap-on Tools Group consists of business operations primarily serving vehicle service and repair technicians through the company's worldwide mobile tool distribution channel. The Repair Systems & Information Group consists of business operations serving other professional vehicle repair customers worldwide, primarily owners and managers of independent repair shops and OEM dealerships through direct and distributor channels. Financial Services consists of the business operations of Snap-on's finance subsidiaries.

Snap-on evaluates the performance of its operating segments based on segment revenues, including both external and intersegment net sales, and segment operating earnings. Snap-on accounts for intersegment sales and transfers based primarily on standard costs with reasonable mark-ups established between the segments. Identifiable assets by segment are those assets used in the respective reportable segment's operations. Corporate assets consist of cash and cash equivalents (excluding cash held at Financial Services), deferred income taxes and certain other assets. All significant intersegment amounts are eliminated to arrive at Snap-on's consolidated financial results.

Commercial & Industrial Group

(Amounts in millions)	2019		2018		Change	
External net sales	$ 1,038.2	77.1 %	$ 1,051.6	78.3 %	$ (13.4)	(1.3)%
Intersegment net sales	307.5	22.9 %	291.7	21.7 %	15.8	5.4 %
Segment net sales	1,345.7	100.0 %	1,343.3	100.0 %	2.4	0.2 %
Cost of goods sold	(833.8)	(62.0)%	(817.7)	(60.9)%	(16.1)	(2.0)%
Gross profit	511.9	38.0 %	525.6	39.1 %	(13.7)	(2.6)%
Operating expenses	(323.2)	(24.0)%	(326.3)	(24.3)%	3.1	1.0 %
Segment operating earnings	$ 188.7	14.0 %	$ 199.3	14.8 %	$ (10.6)	(5.3)%

Segment net sales in 2019 increased $2.4 million, or 0.2%, from 2018 levels, reflecting a $32.2 million, or 2.5%, organic sales gain and $3.1 million of acquisition-related sales, mostly offset by $32.9 million of unfavorable foreign currency translation. The organic sales increase primarily includes a high single-digit gain in the segment's power tools operations, a mid single-digit gain in the specialty tools business and a low single-digit gain in sales to customers in critical industries.

Segment gross margin of 38.0% in 2019 declined 110 bps from 39.1% last year primarily due to increased sales in lower gross margin businesses and higher material and other costs, partially offset by benefits from the company's RCI initiatives.

Segment operating expense margin of 24.0% in 2019 improved 30 bps from 24.3% last year.

As a result of these factors, segment operating earnings in 2019, including $3.3 million of unfavorable foreign currency effects, decreased $10.6 million from 2018 levels. Operating margin (segment operating earnings as a percentage of segment net sales) for the Commercial & Industrial Group was 14.0% in 2019 compared to 14.8% in 2018.

Snap-on Tools Group

(Amounts in millions)	2019		2018		Change	
Segment net sales	$ 1,612.9	100.0 %	$ 1,613.8	100.0 %	$ (0.9)	(0.1)%
Cost of goods sold	(914.3)	(56.7)%	(910.8)	(56.4)%	(3.5)	(0.4)%
Gross profit	698.6	43.3 %	703.0	43.6 %	(4.4)	(0.6)%
Operating expenses	(452.8)	(28.1)%	(438.8)	(27.2)%	(14.0)	(3.2)%
Segment operating earnings	$ 245.8	15.2 %	$ 264.2	16.4 %	$ (18.4)	(7.0)%

Segment net sales in 2019 decreased $0.9 million, or 0.1%, from 2018 levels, reflecting a $14.7 million, or 0.9%, organic sales gain, more than offset by $15.6 million of unfavorable foreign currency translation. The organic sales increase reflects a low single-digit increase in the segment's U.S. franchise operations, partially offset by a low single-digit decline in the segment's international operations.

Segment gross margin in 2019 of 43.3%, including 50 bps of unfavorable foreign currency effects, declined 30 bps from 43.6% last year.

Segment operating expense margin of 28.1% in 2019 increased 90 bps from 27.2% last year primarily due to higher field support investments.

As a result of these factors, segment operating earnings in 2019, including $11.3 million of unfavorable foreign currency effects, decreased $18.4 million from 2018 levels. Operating margin for the Snap-on Tools Group of 15.2% in 2019, including 60 bps of unfavorable foreign currency effects, compared to 16.4% last year.

Repair Systems & Information Group

(Amounts in millions)	2019		2018		Change	
External net sales	$ 1,078.9	80.8 %	$ 1,075.3	80.6 %	$ 3.6	0.3 %
Intersegment net sales	255.6	19.2 %	259.1	19.4 %	(3.5)	(1.4)%
Segment net sales	1,334.5	100.0 %	1,334.4	100.0 %	0.1	—
Cost of goods sold	(701.0)	(52.5)%	(693.0)	(51.9)%	(8.0)	(1.2)%
Gross profit	633.5	47.5 %	641.4	48.1 %	(7.9)	(1.2)%
Operating expenses	(290.8)	(21.8)%	(298.8)	(22.4)%	8.0	2.7 %
Segment operating earnings	$ 342.7	25.7 %	$ 342.6	25.7 %	$ 0.1	—

Segment net sales in 2019 increased $0.1 million from 2018, reflecting a $15.1 million, or 1.1%, organic sales gain and $4.4 million of acquisition-related sales, mostly offset by $19.4 million of unfavorable foreign currency translation. The organic sales increase primarily includes low single-digit gains in sales to OEM dealerships and in sales of diagnostic and repair information products to independent repair shop owners and managers.

Segment gross margin of 47.5% in 2019 declined 60 bps from 48.1% last year, primarily due to increased sales in lower gross margin businesses and higher material and other costs, partially offset by savings from RCI initiatives.

Segment operating expense margin of 21.8% in 2019 improved 60 bps from 22.4% last year primarily due to higher volumes in lower expense businesses and savings from RCI initiatives.

As a result of these factors, segment operating earnings in 2019, including $3.9 million of unfavorable foreign currency effects, increased $0.1 million from 2018 levels. Operating margin for the Repair Systems & Information Group was 25.7% in both 2019 and 2018.

Financial Services

(Amounts in millions)	2019		2018		Change	
Financial services revenue	$ 337.7	100.0 %	$ 329.7	100.0 %	$ 8.0	2.4 %
Financial services expenses	(91.8)	(27.2)%	(99.6)	(30.2)%	7.8	7.8 %
Segment operating earnings	$ 245.9	72.8 %	$ 230.1	69.8 %	$ 15.8	6.9 %

Financial services revenue in 2019 increased $8.0 million, or 2.4%, from last year, primarily reflecting $9.9 million of higher revenue as a result of growth of the company's financial services portfolio, partially offset by $1.9 million of decreased revenue from lower average yields on finance and contract receivables. In 2019 and 2018, the respective average yields on finance receivables were 17.6% and 17.7%, and the respective average yields on contract receivables were 9.1% and 9.2%. Originations of $1,031.8 million in 2019 decreased $25.7 million, or 2.4%, from 2018 levels.

Financial services expenses primarily include personnel-related and other general and administrative costs, as well as expenses for credit losses. These expenses are generally more dependent on changes in the financial services portfolio than they are on the revenue of the segment. Financial services expenses in 2019 decreased $7.8 million from last year primarily due to decreases in the provisions for credit losses as well as lower variable compensation and other costs. As a percentage of the average financial services portfolio, financial services expenses were 4.3% and 4.9% in 2019 and 2018, respectively.

Financial services operating earnings in 2019, including $1.3 million of unfavorable foreign currency effects, increased $15.8 million, or 6.9%, from 2018 levels.

See Note 1 and Note 4 to the Consolidated Financial Statements for further information on financial services.

Corporate

Snap-on's general corporate expenses in 2019 of $60.8 million decreased $19.3 million from $80.1 million last year. The year-over-year decrease in general corporate expenses primarily reflects an $11.6 million benefit from the 2019 legal settlement as well as lower performance-based compensation and other costs. Fiscal 2018 results included a $4.3 million benefit from the 2018 legal settlement.

Fourth Quarter

Results of operations for the fourth quarters of 2019 and 2018 are as follows:

(Amounts in millions)	Fourth Quarter 2019		Fourth Quarter 2018		Change	
Net sales	$ 955.2	100.0 %	$ 952.5	100.0 %	$ 2.7	0.3 %
Cost of goods sold	(504.7)	(52.8)%	(495.1)	(52.0)%	(9.6)	(1.9)%
Gross profit	450.5	47.2 %	457.4	48.0 %	(6.9)	(1.5)%
Operating expenses	(279.1)	(29.3)%	(275.3)	(28.9)%	(3.8)	(1.4)%
Operating earnings before financial services	171.4	17.9 %	182.1	19.1 %	(10.7)	(5.9)%
Financial services revenue	83.9	100.0 %	82.7	100.0 %	1.2	1.5 %
Financial services expenses	(21.7)	(25.9)%	(26.6)	(32.2)%	4.9	18.4 %
Operating earnings from financial services	62.2	74.1 %	56.1	67.8 %	6.1	10.9 %
Operating earnings	233.6	22.5 %	238.2	23.0 %	(4.6)	(1.9)%
Interest expense	(12.1)	(1.2)%	(12.4)	(1.2)%	0.3	2.4 %
Other income (expense) – net	2.4	0.2 %	3.0	0.3 %	(0.6)	(20.0)%
Earnings before income taxes and equity earnings	223.9	21.5 %	228.8	22.1 %	(4.9)	(2.1)%
Income tax expense	(48.9)	(4.7)%	(49.5)	(4.8)%	0.6	1.2 %
Earnings before equity earnings	175.0	16.8 %	179.3	17.3 %	(4.3)	(2.4)%
Equity earnings, net of tax	—	—	—	—	—	—
Net earnings	175.0	16.8 %	179.3	17.3 %	(4.3)	(2.4)%
Net earnings attributable to noncontrolling interests	(4.4)	(0.4)%	(4.3)	(0.4)%	(0.1)	(2.3)%
Net earnings attributable to Snap-on Inc.	$ 170.6	16.4 %	$ 175.0	16.9 %	$ (4.4)	(2.5)%

Percentage Disclosure: All income statement line item percentages below “Operating earnings from financial services” are calculated as a percentage of the sum of Net sales and Financial services revenue.

Net sales in the fourth quarter of 2019 increased $2.7 million, or 0.3%, from 2018 levels, reflecting a $5.5 million, or 0.6%, organic sales gain and $3.5 million of acquisition-related sales, partially offset by $6.3 million of unfavorable foreign currency translation.

Gross profit in the fourth quarter declined $6.9 million, or 1.5%, from 2018. Gross margin of 47.2% in the quarter decreased 80 bps from 48.0% last year primarily due to increased sales in lower gross margin businesses, 10 bps of unfavorable foreign currency effects and higher material and other costs. These decreases in gross margin were partially offset by savings from the company’s RCI initiatives.

Operating expenses in the fourth quarter of 2019 increased $3.8 million from last year, as 2018 included a $4.3 million benefit from the 2018 legal settlement. The operating expense margin of 29.3% in the quarter increased 40 bps from 28.9% last year primarily due to 40 bps of benefit in the prior year from the 2018 legal settlement.

Operating earnings before financial services in the fourth quarter of 2019, including $2.5 million of unfavorable foreign currency effects, decreased $10.7 million, or 5.9%, as compared to last year, which included a $4.3 million benefit for the 2018 legal settlement. As a percentage of net sales, operating earnings before financial services of 17.9% in the quarter compared to 19.1% last year.

Financial services revenue in the fourth quarter of 2019 increased $1.2 million, or 1.5% compared to last year. Financial services operating earnings in the fourth quarter of 2019, including $0.1 million of unfavorable foreign currency effects, increased $6.1 million, or 10.9%, as compared to last year.

Operating earnings in the fourth quarter of 2019, including $2.6 million of unfavorable foreign currency effects, decreased $4.6 million, or 1.9%, from last year, as 2018 included a $4.3 million benefit from the 2018 legal settlement. As a percentage of revenues, operating earnings of 22.5% in the quarter compared to 23.0% last year.

Interest expense in the fourth quarter of 2019 decreased $0.3 million from last year. See Note 9 to the Consolidated Financial Statements for information on Snap-on's debt and credit facilities.

Other income (expense) – net includes net gains and losses associated with hedging and currency exchange rate transactions, non-service components of net periodic benefit costs, and interest income. See Note 17 to the Consolidated Financial Statements for information on other income (expense) – net.

Snap-on's fourth quarter effective income tax rate on earnings attributable to Snap-on was 22.3% in 2019 compared to 22.0% in 2018. See Note 8 to the Consolidated Financial Statements for information on income taxes.

Net earnings attributable to Snap-on in the fourth quarter of 2019 of $170.6 million, or $3.08 per diluted share, decreased $4.4 million, or $0.01 per diluted share, from $175.0 million, or $3.09 per diluted share, in 2018. The fourth quarter of 2018 included $3.2 million, or $0.06 per diluted share, for the after-tax benefit associated with the 2018 legal settlement.

Segment Results

Commercial & Industrial Group

	Fourth Quarter					
(Amounts in millions)	2019		2018		Change	
External net sales	$ 268.7	76.1 %	$ 270.0	78.6 %	$ (1.3)	(0.5)%
Intersegment net sales	84.2	23.9 %	73.7	21.4 %	10.5	14.2 %
Segment net sales	352.9	100.0 %	343.7	100.0 %	9.2	2.7 %
Cost of goods sold	(227.5)	(64.5)%	(211.3)	(61.5)%	(16.2)	(7.7)%
Gross profit	125.4	35.5 %	132.4	38.5 %	(7.0)	(5.3)%
Operating expenses	(80.4)	(22.7)%	(81.6)	(23.7)%	1.2	1.5 %
Segment operating earnings	$ 45.0	12.8 %	$ 50.8	14.8 %	$ (5.8)	(11.4)%

Segment net sales in the fourth quarter of 2019 increased $9.2 million, or 2.7%, from 2018 levels, reflecting an $11.8 million, or 3.5%, organic sales gain and $0.9 million of acquisition-related sales, partially offset by $3.5 million of unfavorable foreign currency translation. The organic sales increase primarily includes a double-digit gain in the segment's power tools operations, a mid single-digit gain in Asia Pacific operations and a low single-digit gain in sales to customers in critical industries. These increases were partially offset by a low single-digit decrease in sales in the segment's European-based hand tools business.

Segment gross margin of 35.5% in the fourth quarter of 2019 declined 300 bps from 38.5% last year primarily due to increased sales in lower gross margin businesses and higher material and other costs, partially offset by benefits from the company's RCI initiatives.

Segment operating expense margin of 22.7% in the fourth quarter of 2019 improved 100 bps from 23.7% last year primarily due to the benefits from sales volume leverage, including higher volumes in lower expense businesses.

As a result of these factors, segment operating earnings in the fourth quarter of 2019, including $0.6 million of unfavorable foreign currency effects, decreased $5.8 million from 2018 levels. Operating margin for the Commercial & Industrial Group of 12.8% in the fourth quarter of 2019 compared to 14.8% last year.

Snap-on Tools Group

	Fourth Quarter					
(Amounts in millions)	2019		2018		Change	
Segment net sales	$ 411.7	100.0 %	$ 407.4	100.0 %	$ 4.3	1.1 %
Cost of goods sold	(246.3)	(59.8)%	(243.7)	(59.8)%	(2.6)	(1.1)%
Gross profit	165.4	40.2 %	163.7	40.2 %	1.7	1.0 %
Operating expenses	(111.1)	(27.0)%	(106.7)	(26.2)%	(4.4)	(4.1)%
Segment operating earnings	$ 54.3	13.2 %	$ 57.0	14.0 %	$ (2.7)	(4.7)%

Segment net sales in the fourth quarter of 2019 increased $4.3 million, or 1.1%, from 2018 levels, reflecting a $5.3 million, or 1.3%, organic sales increase, partially offset by $1.0 million of unfavorable foreign currency translation. The organic sales increase reflects a low single-digit gain in the segment's U.S. franchise operations, partially offset by a low single-digit decline in the segment's international operations.

Segment gross margin in the fourth quarter of 2019, including 40 bps of unfavorable foreign currency effects, of 40.2% was unchanged from the fourth quarter of 2018.

Segment operating expense margin of 27.0% in the fourth quarter of 2019 increased 80 bps from 26.2% last year primarily due to higher field support investments.

As a result of these factors, segment operating earnings in the fourth quarter of 2019, including $1.7 million of unfavorable foreign currency effects, decreased $2.7 million from 2018 levels. Operating margin for the Snap-on Tools Group of 13.2% in the fourth quarter of 2019 compared to 14.0% last year.

Repair Systems & Information Group

(Amounts in millions)	Fourth Quarter 2019		2018		Change	
External net sales	$ 274.8	82.0 %	$ 275.1	80.9 %	$ (0.3)	(0.1)%
Intersegment net sales	60.2	18.0 %	64.8	19.1 %	(4.6)	(7.1)%
Segment net sales	335.0	100.0 %	339.9	100.0 %	(4.9)	(1.4)%
Cost of goods sold	(175.3)	(52.3)%	(178.6)	(52.5)%	3.3	1.8 %
Gross profit	159.7	47.7 %	161.3	47.5 %	(1.6)	(1.0)%
Operating expenses	(72.5)	(21.7)%	(73.9)	(21.8)%	1.4	1.9 %
Segment operating earnings	$ 87.2	26.0 %	$ 87.4	25.7 %	$ (0.2)	(0.2)%

Segment net sales in the fourth quarter of 2019 decreased $4.9 million, or 1.4%, from 2018 levels, reflecting a $5.2 million, or 1.5%, organic sales decline and $2.3 million of unfavorable foreign currency translation, partially offset by $2.6 million of acquisition-related sales. The organic sales decrease includes a high single-digit decline in sales to OEM dealerships, partially offset by low single-digit increases in sales of undercar equipment, and in sales of diagnostic and repair information products to independent repair shop owners and managers.

Segment gross margin of 47.7% in the fourth quarter of 2019 improved 20 bps from 47.5% last year.

Segment operating expense margin for the fourth quarter of 2019 of 21.7% improved 10 bps from 21.8% last year.

As a result of these factors, segment operating earnings in the fourth quarter of 2019, including $0.2 million of unfavorable foreign currency effects, decreased $0.2 million from 2018 levels. Operating margin for the Repair Systems & Information Group of 26.0% in the fourth quarter of 2019 compared to 25.7% last year.

Financial Services

(Amounts in millions)	Fourth Quarter 2019		2018		Change	
Financial services revenue	$ 83.9	100.0 %	$ 82.7	100.0 %	$ 1.2	1.5 %
Financial services expenses	(21.7)	(25.9)%	(26.6)	(32.2)%	4.9	18.4 %
Segment operating earnings	$ 62.2	74.1 %	$ 56.1	67.8 %	$ 6.1	10.9 %

Financial services revenue in the fourth quarter of 2019 increased $1.2 million, or 1.5%, compared to last year, primarily reflecting $2.1 million of higher revenue as a result of growth in the company's financial services portfolio, partially offset by $0.9 million of decreased revenue from lower average yields on finance receivables. In the fourth quarters of 2019 and 2018, the respective average yields on finance receivables were 17.5% and 17.7%, and the average yields on contract receivables was 9.2% in both periods. Originations of $262.4 million in the fourth quarter of 2019 decreased $4.7 million, or 1.8%, from 2018 levels.

Financial services expenses in the fourth quarter of 2019 decreased $4.9 million from last year primarily due to decreases in the provisions for credit losses as well as lower variable compensation and other costs. As a percentage of the average financial services portfolio, financial services expenses were 1.0% and 1.3% for the fourth quarters of 2019 and 2018, respectively.

Financial services operating earnings of $62.2 million in the fourth quarter of 2019, including $0.1 million of unfavorable foreign currency effects, increased $6.1 million, or 10.9%, from 2018 levels.

See Note 1 and Note 4 to the Consolidated Financial Statements for further information on financial services.

Corporate

Snap-on's fourth quarter 2019 general corporate expenses of $15.1 million increased $2.0 million from $13.1 million last year. The year-over-year increase in general corporate expenses primarily reflects a $4.3 million benefit from the 2018 legal settlement recorded in the fourth quarter of 2018, partially offset by lower performance-based compensation and other costs in 2019.

Non-GAAP Supplemental Data

The following non-GAAP supplemental data is presented for informational purposes to provide readers with insight into the information used by management for assessing the operating performance of Snap-on's non-financial services ("Operations") and "Financial Services" businesses.

The supplemental Operations data reflects the results of operations and financial position of Snap-on's tools, diagnostic and equipment products, software and other non-financial services operations with Financial Services on the equity method. The supplemental Financial Services data reflects the results of operations and financial position of Snap-on's U.S. and international financial services operations. The financing needs of Financial Services are met through intersegment borrowings and cash generated from Operations; Financial Services is charged interest expense on intersegment borrowings at market rates. Income taxes are charged to Financial Services on the basis of the specific tax attributes generated by the U.S. and international financial services businesses. Transactions between the Operations and Financial Services businesses were eliminated to arrive at the Consolidated Financial Statements.

Non-GAAP Supplemental Consolidating Data – Supplemental Statements of Earnings information for 2019, 2018 and 2017 is as follows:

	Operations*			Financial Services		
(Amounts in millions)	2019	2018	2017	2019	2018	2017
Net sales	$ 3,730.0	$ 3,740.7	$ 3,686.9	$ —	$ —	$ —
Cost of goods sold	(1,886.0)	(1,870.7)	(1,861.0)	—	—	—
Gross profit	1,844.0	1,870.0	1,825.9	—	—	—
Operating expenses	(1,127.6)	(1,144.0)	(1,161.3)	—	—	—
Operating earnings before financial services	716.4	726.0	664.6	—	—	—
Financial services revenue	—	—	—	337.7	329.7	313.4
Financial services expenses	—	—	—	(91.8)	(99.6)	(95.9)
Operating earnings from financial services	—	—	—	245.9	230.1	217.5
Operating earnings	716.4	726.0	664.6	245.9	230.1	217.5
Interest expense	(48.8)	(50.1)	(52.1)	(0.2)	(0.3)	(0.3)
Intersegment interest income (expense) – net	70.5	69.7	70.8	(70.5)	(69.7)	(70.8)
Other income (expense) – net	8.9	4.1	(7.8)	(0.1)	0.1	—
Earnings before income taxes and equity earnings	747.0	749.7	675.5	175.1	160.2	146.4
Income tax expense	(166.6)	(173.1)	(196.8)	(45.2)	(41.3)	(54.1)
Earnings before equity earnings	580.4	576.6	478.7	129.9	118.9	92.3
Financial services – net earnings attributable to Snap-on	129.9	118.9	92.3	—	—	—
Equity earnings, net of tax	0.9	0.7	1.2	—	—	—
Net earnings	711.2	696.2	572.2	129.9	118.9	92.3
Net earnings attributable to noncontrolling interests	(17.7)	(16.3)	(14.5)	—	—	—
Net earnings attributable to Snap-on	$ 693.5	$ 679.9	$ 557.7	$ 129.9	$ 118.9	$ 92.3

* Snap-on with Financial Services on the equity method.

Non-GAAP Supplemental Consolidating Data – Supplemental Balance Sheet Information as of 2019 and 2018 year end is as follows:

	Operations*		Financial Services	
(Amounts in millions)	2019	2018	2019	2018
ASSETS				
Current assets:				
Cash and cash equivalents	$ 184.4	$ 140.5	$ 0.1	$ 0.4
Intersegment receivables	14.2	15.1	—	—
Trade and other accounts receivable – net	693.5	692.1	1.1	0.5
Finance receivables – net	—	—	530.1	518.5
Contract receivables – net	6.8	6.6	93.9	91.7
Inventories – net	760.4	673.8	—	—
Prepaid expenses and other assets	111.8	100.2	7.0	0.5
Total current assets	1,771.1	1,628.3	632.2	611.6
Property and equipment – net	519.8	493.5	1.7	1.6
Operating lease right-of-use assets	52.9	—	2.7	—
Investment in Financial Services	340.5	329.5	—	—
Deferred income tax assets	32.7	45.8	19.6	18.9
Intersegment long-term notes receivable	755.5	701.3	—	—
Long-term finance receivables – net	—	—	1,103.5	1,074.4
Long-term contract receivables – net	16.0	11.9	344.1	333.0
Goodwill	913.8	902.2	—	—
Other intangibles – net	243.9	232.9	—	—
Other assets	73.0	51.9	0.2	0.1
Total assets	$ 4,719.2	$ 4,397.3	$ 2,104.0	$ 2,039.6

* Snap-on with Financial Services on the equity method.

Non-GAAP Supplemental Consolidating Data – Supplemental Balance Sheet Information (continued):

	Operations*		Financial Services	
(Amounts in millions)	2019	2018	2019	2018
LIABILITIES AND EQUITY				
Current liabilities:				
Notes payable	$ 202.9	$ 186.3	$ —	$ —
Accounts payable	197.3	199.6	1.2	1.5
Intersegment payables	—	—	14.2	15.1
Accrued benefits	53.2	52.0	0.1	—
Accrued compensation	52.2	66.8	1.7	4.7
Franchisee deposits	68.2	67.5	—	—
Other accrued liabilities	353.7	355.4	25.7	26.1
Total current liabilities	927.5	927.6	42.9	47.4
Long-term debt and intersegment long-term debt	—	—	1,702.4	1,647.3
Deferred income tax liabilities	69.3	41.4	—	—
Retiree health care benefits	33.6	31.8	—	—
Pension liabilities	122.1	171.3	—	—
Operating lease liabilities	34.5	—	3.0	—
Other long-term liabilities	101.4	106.6	15.2	15.4
Total liabilities	1,288.4	1,278.7	1,763.5	1,710.1
Total shareholders’ equity attributable to Snap-on	3,409.1	3,098.8	340.5	329.5
Noncontrolling interests	21.7	19.8	—	—
Total equity	3,430.8	3,118.6	340.5	329.5
Total liabilities and equity	$ 4,719.2	$ 4,397.3	$ 2,104.0	$ 2,039.6

* Snap-on with Financial Services on the equity method.

Liquidity and Capital Resources

Snap-on's growth has historically been funded by a combination of cash provided by operating activities and debt financing. Snap-on believes that its cash from operations and collections of finance receivables, coupled with its sources of borrowings and available cash on hand, are sufficient to fund its currently anticipated requirements for scheduled debt repayments, payments of interest and dividends, new receivables originated by our financial services businesses, capital expenditures, working capital, the funding of pension plans, and funding for share repurchases and acquisitions, if and as they arise.

Due to Snap-on's credit rating over the years, external funds have been available at an acceptable cost. As of the close of business on February 7, 2020, Snap-on's long-term debt and commercial paper were rated, respectively, A2 and P-1 by Moody's Investors Service; A- and A-2 by Standard & Poor's; and A and F1 by Fitch Ratings. Snap-on believes that its current credit arrangements are sound and that the strength of its balance sheet affords the company the financial flexibility, including through access to financial markets for potential new financing, to respond to both internal growth opportunities and those available through acquisitions. However, Snap-on cannot provide any assurances of the availability of future financing or the terms on which it might be available, or that its debt ratings may not decrease.

The following discussion focuses on information included in the accompanying Consolidated Balance Sheets.

As of 2019 year end, working capital (current assets less current liabilities) of $1,432.9 million increased $168.0 million from $1,264.9 million as of 2018 year end primarily as a result of other net changes in working capital discussed below.

The following represents the company's working capital position as of 2019 and 2018 year end:

(Amounts in millions)	2019	2018
Cash and cash equivalents	$ 184.5	$ 140.9
Trade and other accounts receivable – net	694.6	692.6
Finance receivables – net	530.1	518.5
Contract receivables – net	100.7	98.3
Inventories – net	760.4	673.8
Prepaid expenses and other assets	110.2	92.8
Total current assets	2,380.5	2,216.9
Notes payable	(202.9)	(186.3)
Accounts payable	(198.5)	(201.1)
Other current liabilities	(546.2)	(564.6)
Total current liabilities	(947.6)	(952.0)
Working capital	$ 1,432.9	$ 1,264.9

Cash and cash equivalents of $184.5 million as of 2019 year end increased $43.6 million from 2018 year-end levels primarily due to: (i) $754.3 million of cash from collections of finance receivables; (ii) $674.6 million of cash generated from operations, net of $40.0 million of discretionary cash contributions to the company's domestic pension plans; (iii) $51.4 million of cash proceeds from stock purchase and option plan exercises; and (iv) $17.6 million of net proceeds from other short-term borrowings. These increases in cash and cash equivalents were partially offset by: (i) the funding of $841.9 million of new finance receivables; (ii) the repurchase of 1,495,000 shares of the company's common stock for $238.4 million; (iii) dividend payments to shareholders of $216.6 million; (iv) the funding of $99.4 million of capital expenditures; and (v) the funding of $38.6 million for acquisitions.

Of the $184.5 million of cash and cash equivalents as of 2019 year end, $166.8 million was held outside of the United States. Snap-on maintains non-U.S. funds in its foreign operations to: (i) provide adequate working capital; (ii) satisfy various regulatory requirements; and/or (iii) take advantage of business expansion opportunities as they arise. Although the Tax Act generally eliminates U.S. federal taxation on dividends from foreign subsidiaries, such dividends may still be subject to state income taxation and foreign withholding taxes. Snap-on periodically evaluates its cash held outside the United States and may pursue opportunities to repatriate certain foreign cash amounts to the extent that it can be accomplished in a tax efficient manner.

Trade and other accounts receivable – net of $694.6 million as of 2019 year end increased $2.0 million from 2018 year-end levels primarily due to a total of $3.2 million of receivables related to the Power Hawk and Cognitran acquisitions, partially offset by $1.1 million of unfavorable foreign currency translation. Days sales outstanding (trade and other accounts receivable – net as of the respective period end, divided by the respective trailing 12 months sales, times 360 days) was 67 days at both 2019 and 2018 year ends.

The current portions of net finance and contract receivables of $630.8 million as of 2019 year end compared to $616.8 million at 2018 year end. The long-term portions of net finance and contract receivables of $1,463.6 million as of 2019 year end compared to $1,419.3 million at 2018 year end. The combined $58.3 million increase in net current and long-term finance and contract receivables over 2018 year-end levels is primarily due to continued growth of the company's financial services portfolio and $4.4 million of foreign currency translation.

Inventories – net of $760.4 million as of 2019 year end increased $86.6 million from 2018 year-end levels primarily due to continued support for higher customer demand and new product introductions, as well as a total of $0.6 million of inventories related to the Power Hawk acquisition, partially offset by $3.0 million of foreign currency translation. As of 2019 and 2018 year end, inventory turns (trailing 12 months of cost of goods sold, divided by the average of the beginning and ending inventory balance for the trailing 12 months) were 2.6 turns and 2.9 turns, respectively. Inventories accounted for using the first-in, first-out ("FIFO") method as of 2019 and 2018 year end approximated 58% and 61%, respectively, of total inventories. All other inventories are accounted for using the last-in, first-out ("LIFO") method. The company's LIFO reserve was $84.5 million and $78.4 million at 2019 and 2018 year end, respectively.

Notes payable of $202.9 million as of 2019 year end included $193.6 million of commercial paper borrowings and $9.3 million of other notes. Notes payable of $186.3 million as of 2018 year end consisted of $177.1 million of commercial paper borrowings and $9.2 million of other notes.

Average notes payable outstanding, including commercial paper borrowings, were $175.0 million and $167.7 million in 2019 and 2018, respectively. The 2019 year-end weighted-average interest rate on such borrowings of 2.87% compared with 2.84% at 2018 year end. Average commercial paper borrowings were $162.2 million and $154.9 million in 2019 and 2018, respectively, and the weighted-average interest rate on such borrowings of 2.27% in 2019 increased from 2.03% last year. At 2019 year end, the weighted-average interest rate on outstanding notes payable of 2.23% compared with 3.21% at 2018 year end. The 2019 year-end rate decreased primarily due to lower rates on commercial borrowings.

Accounts payable of $198.5 million as of 2019 year end decreased $2.6 million from 2018 year-end levels, primarily due to the timing of payments and $1.3 million of foreign currency translation.

Other accrued liabilities of $370.8 million as of 2019 year end decreased $2.8 million from 2018 year-end levels primarily due to lower income tax accruals and $0.7 million of foreign currency translation.

Long-term debt of $946.9 million as of 2019 year end consisted of: (i) $250.0 million of unsecured 6.125% notes that mature in 2021; (ii) $300.0 million of the unsecured 3.25% notes that mature on March 1, 2027 (the "2027 Notes"); and (iii) $400 million of the 2048 Notes, partially offset by $3.1 million from the net effects of debt amortization costs and fair value adjustments of interest rate swaps.

On September 16, 2019, Snap-on entered into a five-year, $800 million multi-currency revolving credit facility that terminates on September 16, 2024 (the "Credit Facility"); no amounts were outstanding under the Credit Facility as of December 28, 2019. The Credit Facility amended and restated in its entirety Snap-on's previous $700 million multi-currency revolving credit facility that was set to terminate on December 15, 2020. Borrowings under the Credit Facility bear interest at varying rates based on either (i) Snap-on's then-current, long-term debt ratings; or (ii) Snap-on's then-current ratio of consolidated debt net of certain cash adjustments ("Consolidated Net Debt") to earnings before interest, taxes, depreciation, amortization and certain other adjustments for the preceding four fiscal quarters then ended (the "Consolidated Net Debt to EBITDA Ratio"). The Credit Facility's financial covenant requires that Snap-on maintain, as of each fiscal quarter end, either (i) a ratio not greater than 0.60 to 1.00 of Consolidated Net Debt to the sum of Consolidated Net Debt plus total equity and less accumulated other comprehensive income or loss (the "Leverage Ratio"); or (ii) a Consolidated Net Debt to EBITDA Ratio not greater than 3.50 to 1.00. Snap-on may, up to two times during any five-year period during the term of the Credit Facility (including any extensions thereof), elect to increase the maximum Leverage Ratio to 0.65 to 1.00 and/or increase the maximum Consolidated Net Debt to EBITDA Ratio to 4.00 to 1.00 for four consecutive fiscal quarters in connection with certain material acquisitions (as defined in the related credit agreement). As of December 28, 2019, the company's actual ratios of 0.20 and 0.92 respectively, were both within the permitted ranges set forth in this financial covenant. Snap-on generally issues commercial paper to fund its financing needs on a short-term basis and uses the Credit Facility as back-up liquidity to support such commercial paper issuances.

Snap-on's Credit Facility and other debt agreements also contain certain usual and customary borrowing, affirmative, negative and maintenance covenants. As of 2019 year end, Snap-on was in compliance with all covenants of its Credit Facility and other debt agreements.

Snap-on believes it has sufficient available cash and access to both committed and uncommitted credit facilities to cover its expected funding needs on both a short-term and long-term basis. Snap-on manages its aggregate short-term borrowings so as not to exceed its availability under the revolving Credit Facility. Snap-on believes that it can access short-term debt markets, predominantly through commercial paper issuances and existing lines of credit, to fund its short-term requirements and to ensure near-term liquidity. Snap-on regularly monitors the credit and financial markets and may take advantage of what it believes are favorable market conditions to issue long-term debt to further improve its liquidity and capital resources. Near-term liquidity requirements for Snap-on include scheduled debt payments, payments of interest and dividends, funding to support new receivables originated by our financial services businesses, capital expenditures, working capital, the funding of pension plans, and funding for share repurchases and acquisitions, if and as they arise. Snap-on intends to make contributions of $8.7 million to its foreign pension plans and $2.9 million to its domestic pension plans in 2020, as required by law. Depending on market and other conditions, Snap-on may make additional discretionary cash contributions to its pension plans in 2020.

Snap-on's long-term financing strategy is to maintain continuous access to the debt markets to accommodate its liquidity needs, including the use of commercial paper, additional fixed-term debt and/or securitizations.

The following discussion focuses on information included in the accompanying Consolidated Statements of Cash Flows.

Operating Activities

Net cash provided by operating activities of $674.6 million in 2019 decreased $89.9 million from $764.5 million in 2018. The $89.9 million decrease is primarily due to $110.8 million from net changes in operating assets and liabilities, partially offset by $15.0 million of higher net earnings.

Depreciation expense was $70.1 million in 2019 and $68.8 million in 2018. Amortization expense was $22.3 million in 2019 and $25.3 million in 2018. See Note 7 to the Consolidated Financial Statements for information on goodwill and other intangible assets.

Investing Activities

Net cash used by investing activities of $222.1 million in 2019 included additions to finance receivables of $841.9 million, partially offset by collections of $754.3 million. Net cash used by investing activities of $210.2 million in 2018 included additions to finance receivables of $865.6 million, partially offset by collections of $747.7 million. Finance receivables are comprised of extended-term installment payment contracts to both technicians and independent shop owners (i.e., franchisees' customers) to enable them to purchase tools, diagnostic and equipment products on an extended-term payment plan, generally with average payment terms of approximately four years.

Net cash used by investing activities in 2019 also included a total of $38.6 million (net of $1.0 million of cash acquired) for the acquisitions of TMB, Power Hawk and Cognitran. Net cash used by investing activities in 2018 included a total of $3.0 million for the acquisition of Fastorq. See Note 3 to the Consolidated Financial Statements for information on acquisitions.

Capital expenditures in 2019 and 2018 totaled $99.4 million and $90.9 million, respectively. Capital expenditures in both years included continued investments related to the company's execution of its strategic growth initiatives and Value Creation Processes. The company also invested in: (i) new product, efficiency, safety and cost reduction initiatives that are intended to expand and improve its manufacturing and distribution capabilities worldwide; (ii) new production and machine tooling to enhance manufacturing operations, as well as ongoing replacements of manufacturing and distribution equipment, particularly in the United States; (iii) the ongoing replacement and enhancement of the company's global enterprise resource planning (ERP) management information systems; and (iv) a new expanded facility for the company's repair information business in San Diego, California. Snap-on believes that its cash generated from operations, as well as its available cash on hand and funds available from its credit facilities will be sufficient to fund the company's capital expenditure requirements in 2020.

Financing Activities

Net cash used by financing activities of $409.4 million in 2019 included net proceeds from other short-term borrowings of $17.6 million. Net cash used by financing activities of $502.2 million in 2018 included repayments of $250 million of the 2018 Notes at maturity and $200 million of the 2019 Notes prior to maturity, as well as a $7.8 million loss on early extinguishment of debt. These amounts were partially offset by Snap-on's sale, on February 20, 2018, of $400 million of the 2048 Notes at a discount, from which Snap-on received $395.4 million of net proceeds, reflecting $3.5 million of transaction costs, and $4.9 million of proceeds from the net increase in notes payable and other short-term borrowings.

Proceeds from stock purchase and option plan exercises totaled $51.4 million in 2019 and $55.5 million in 2018. Snap-on has undertaken stock repurchases from time to time to offset dilution created by shares issued for employee and franchisee stock purchase plans, stock options and other corporate purposes. In 2019, Snap-on repurchased 1,495,000 shares of its common stock for $238.4 million under its previously announced share repurchase programs. As of 2019 year end, Snap-on had remaining availability to repurchase up to an additional $359.6 million in common stock pursuant to its Board of Directors' (the "Board") authorizations. The purchase of Snap-on common stock is at the company's discretion, subject to prevailing financial and market conditions. Snap-on repurchased 1,769,000 shares of its common stock for $284.1 million in 2018. Snap-on believes that its cash generated from operations, available cash on hand, and funds available from its credit facilities, will be sufficient to fund the company's share repurchases, if any, in 2020.

Snap-on has paid consecutive quarterly cash dividends, without interruption or reduction, since 1939. Cash dividends paid in 2019 and 2018 totaled $216.6 million and $192.0 million, respectively. On November 8, 2019, the company announced that its Board increased the quarterly cash dividend by 13.7% to $1.08 per share ($4.32 per share annualized). Quarterly dividends in 2019 were $1.08 per share in the fourth quarter and $0.95 per share in the first three quarters ($3.93 per share for the year). Quarterly dividends in 2018 were $0.95 per share in the fourth quarter and $0.82 per share in the first three quarters ($3.41 per share for the year).

	2019	2018
Cash dividends paid per common share	$ 3.93	$ 3.41
Cash dividends paid as a percent of prior-year retained earnings	5.1%	5.1%

Snap-on believes that its cash generated from operations, available cash on hand and funds available from its credit facilities will be sufficient to pay dividends in 2020.

Off-Balance-Sheet Arrangements

Except as included below in the section labeled "Contractual Obligations and Commitments" and Note 15 to the Consolidated Financial Statements, the company had no off-balance-sheet arrangements as of 2019 year end.

Contractual Obligations and Commitments

A summary of Snap-on's future contractual obligations and commitments as of 2019 year end are as follows:

(Amounts in millions)	Total	2020	2021-2022	2023-2024	2025 and thereafter
Contractual obligations:					
Notes payable	$ 202.9	$ 202.9	$ —	$ —	$ —
Long-term debt	946.9	—	250.0	—	696.9
Interest on fixed rate debt	557.3	41.5	62.5	52.3	401.0
Operating leases	60.0	20.6	26.4	10.3	2.7
Finance leases	13.8	3.2	5.8	4.6	0.2
Purchase obligations	59.0	53.4	5.3	0.2	0.1
Total	$ 1,839.9	$ 321.6	$ 350.0	$ 67.4	$ 1,100.9

Snap-on intends to make contributions of $8.7 million to its foreign pension plans and $2.9 million to its domestic pension plans in 2020, as required by law. Depending on market and other conditions, Snap-on may make additional discretionary cash contributions to its pension plans in 2020. Snap-on has not presented estimated pension and postretirement funding contributions in the table above as the funding can vary from year to year based on changes in the fair value of the plan assets and actuarial assumptions; see Note 11 and Note 12 to the Consolidated Financial Statements for information on the company's benefit plans and payments.

Due to the uncertainty of the timing of settlements with taxing authorities, Snap-on is unable to make reasonably reliable estimates of the period of cash settlement of unrecognized tax benefits for its remaining uncertain tax liabilities. As a result, $10.3 million of unrecognized tax benefits have been excluded from the table above; see Note 8 to the Consolidated Financial Statements for information on income taxes.

Environmental Matters

Snap-on is subject to various federal, state and local government requirements regulating the discharge of materials into the environment or otherwise relating to the protection of the environment. Snap-on's policy is to comply with these requirements and the company believes that, as a general matter, its policies, practices and procedures are properly designed to prevent unreasonable risk of environmental damage, and of resulting financial liability, in connection with its business. Some risk of environmental damage is, however, inherent in some of Snap-on's operations and products, as it is with other companies engaged in similar businesses.

Snap-on is and has been engaged in the handling, manufacture, use and disposal of many substances classified as hazardous or toxic by one or more regulatory agencies. Snap-on believes that, as a general matter, its handling, manufacture, use and disposal of these substances are in accordance with environmental laws and regulations. It is possible, however, that future knowledge or other developments, such as improved capability to detect substances in the environment or increasingly strict environmental laws and standards and enforcement policies, could bring into question the company's handling, manufacture, use or disposal of these substances.

New Accounting Standards

See Note 1 to the Consolidated Financial Statements for information on new accounting standards.

Critical Accounting Policies and Estimates

The Consolidated Financial Statements and related notes contain information that is pertinent to management's discussion and analysis. The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America ("GAAP") requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. These estimates are generally based on historical experience, current conditions and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily available from other sources, as well as identifying and assessing our accounting treatment with respect to commitments and contingencies. Actual results could differ from those estimates.

In addition to the company's significant accounting policies described in Note 1 to the Consolidated Financial Statements, Snap-on considers the following policies and estimates to be the most critical in understanding the judgments that are involved in the preparation of the company's consolidated financial statements and the uncertainties that could impact the company's financial position, results of operations and cash flows.

Impairment of Goodwill and Other Indefinite-lived Intangible Assets: Goodwill and other indefinite-lived intangible assets are tested for impairment annually or more frequently if events or changes in circumstances indicate that the assets might be impaired. Annual impairment tests are performed by the company in the second quarter of each year using information available as of April month end.

Snap-on evaluates the recoverability of goodwill by estimating the future discounted cash flows of the businesses to which the goodwill relates. Estimated cash flows and related goodwill are grouped at the reporting unit level. The company has determined that its reporting units for testing goodwill impairment are its operating segments or components of an operating segment that constitute a business for which discrete financial information is available and for which segment management regularly reviews the operating results. Within its four reportable operating segments, the company has identified 11 reporting units.

Snap-on evaluates the recoverability of goodwill by utilizing an income approach that estimates the fair value of the future discounted cash flows of the reporting units to which the goodwill relates. The future projections, which are based on both past performance and the projections and assumptions used in the company's operating plans, are subject to change as a result of changing economic and competitive conditions. This approach reflects management's internal outlook at the reporting units, which management believes provides the best determination of value due to management's insight and experience with the reporting units. Significant estimates used by management in the discounted cash flows methodology include estimates of future cash flows based on expected growth rates, price increases, working capital levels, expected benefits from RCI initiatives, and a weighted-average cost of capital that reflects the specific risk profile of the reporting unit being tested. The company's methodologies for valuing goodwill are applied consistently on a year-over-year basis; the assumptions used in performing the second quarter 2019 impairment calculations were evaluated in light of then-current market and business conditions. Snap-on continues to believe that the future discounted cash flow valuation model provides the most reasonable and meaningful fair value estimate based upon the reporting units' projections of future operating results and cash flows and replicates how market participants would value the company's reporting units in an orderly transaction.

In the event the fair value of a reporting unit is less than the carrying value, including goodwill, the company would then record an impairment charge based on the excess of a reporting units carrying amount over its fair value.

Snap-on also evaluates the recoverability of its indefinite-lived trademarks by utilizing an income approach that estimates the fair value of the future discounted cash flows of each of its trademarks. The future projections, which are based on both past performance and the projections and assumptions used in the company's operating plans, are subject to change as a result of changing economic and competitive conditions. Significant estimates used by management in the discounted cash flows methodology include estimates of future cash flows based on expected growth and royalty rates, expected synergies, and a weighted-average cost of capital that reflects the specific risk profile of the trademark being tested. The company's methodologies for valuing trademarks are applied consistently on a year-over-year basis; the assumptions used in performing the second quarter 2019 impairment calculations were evaluated in light of then-current market and business conditions. Snap-on continues to believe that the future discounted cash flow valuation model provides the most reasonable and meaningful fair value estimate based upon the trademarks' projected future cash flows and replicates how market participants would value the company's trademarks in an orderly transaction.

Inherent in fair value determinations are significant judgments and estimates, including material assumptions about future revenue, profitability and cash flows, the company's operational plans and its interpretation of current economic indicators. Should the operations of the businesses with which goodwill or other indefinite-lived intangible assets are associated incur significant declines in profitability and cash flow due to significant and long-term deterioration in macroeconomic, industry and market conditions, the loss of key customers, changes in technology or markets, significant changes in key personnel or litigation, a significant and sustained decrease in share price and/or other events, including effects from the sale or disposal of a reporting unit, some or all of the recorded goodwill or other indefinite-lived intangible assets could be subject to impairment and could result in a material adverse effect on Snap-on's financial position or results of operations.

Snap-on completed its annual impairment testing of goodwill and other indefinite-lived intangible assets in the second quarter of 2019, which did not result in any impairment. As of 2019 year end, the company has no accumulated impairment losses. Although the company consistently uses the same methods in developing the assumptions and estimates underlying the fair value calculations, such estimates are uncertain by nature and can vary from actual results. In performing its annual impairment testing the company performed a sensitivity analysis on the material assumptions used in the discounted cash flow valuation models for each of its 11 reporting units. Based on the company's second quarter 2019 impairment testing, and assuming a hypothetical 10% decrease in the estimated fair values of each of its 11 reporting units, the hypothetical fair value of each of the company's 11 reporting units would have been greater than its carrying value. See Note 7 to the Consolidated Financial Statements for further information about goodwill and other intangible assets.

Pension Benefits: The pension benefit obligation and related pension expense are calculated in accordance with GAAP and are impacted by certain actuarial assumptions. Changes in these assumptions are primarily influenced by factors outside of Snap-on's control, such as changes in economic conditions, and can have a significant effect on the amounts reported in the financial statements. Snap-on believes that the two most critical assumptions are (i) the expected return on plan assets; and (ii) the assumed discount rate.

Snap-on's domestic pension plans have a long-term investment horizon and a total return strategy that emphasizes a capital growth objective. In 2019, the long-term investment performance objective for Snap-on's domestic plans' assets was to achieve net of expense returns that met or exceeded the 7.45% domestic expected return on plan assets assumption. Snap-on uses a three-year, market-related value asset method of amortizing the difference between actual and expected returns on its domestic plans' assets. As of 2019 year end, Snap-on's domestic pension plans' assets comprised approximately 87% of the company's worldwide pension plan assets.

Based on forward-looking capital market expectations, Snap-on selected an expected return on plan assets assumption for its U.S. pension plans of 7.25%, a decrease of 20 bps from 2019, to be used in determining pension expense for 2020. In estimating the domestic expected return on plan assets, Snap-on utilizes a nominal returns forecasting method. For each asset class, future returns are estimated by identifying the premium of riskier asset classes over lower risk alternatives. The methodology constructs expected returns using a "building block" approach to the individual components of total return. These forecasts are stated in both nominal and real (after inflation) terms. This process first considers the long-term historical return premium based on the longest set of data available for each asset class. These premiums, calculated using the geometric mean, are then adjusted based on current relative valuation levels, macro-economic conditions, and the expected alpha related to active investment management. The asset return assumption is also adjusted by an implicit expense load for estimated administrative and investment-related expenses. Since asset allocation is a key determinant of expected investment returns, the current and expected mix of plan assets are also considered when setting the assumption.

Pension expense increases as the expected rate of return on plan assets decreases. Lowering the expected rate of return assumption for Snap-on's domestic pension plans' assets by 50 bps would have increased Snap-on's 2019 domestic pension expense by approximately $5.6 million.

The objective of Snap-on's discount rate assumption is to reflect the rate at which the pension benefits could be effectively settled. In making this determination, the company takes into account the timing and amount of benefits that would be available under the plans. The domestic discount rate as of 2019 and 2018 year end was selected based on a cash flow matching methodology developed by the company's outside actuaries and which incorporates a review of current economic conditions. This methodology matches the plans' yearly projected cash flows for benefits and service costs to those of hypothetical bond portfolios using high-quality, AA rated or better, corporate bonds from either Moody's Investors Service or Standard & Poor's credit rating agencies available at the measurement date. This technique calculates bond portfolios that produce adequate cash flows to pay the plans' projected yearly benefits and then selects the portfolio with the highest yield and uses that yield as the recommended discount rate.

The selection of the 3.4% weighted-average discount rate for Snap-on's domestic pension plans as of 2019 year end (compared to 4.4% as of 2018 year end) represents the single rate that produces the same present value of cash flows as the estimated benefit plan payments. Lowering Snap-on's domestic discount rate assumption by 50 bps would have increased Snap-on's 2019 domestic pension expense and projected benefit obligation by approximately $4.3 million and $74.2 million, respectively. As of 2019 year end, Snap-on's domestic projected benefit obligation comprised approximately 83% of Snap-on's worldwide projected benefit obligation. The weighted-average discount rate for Snap-on's foreign pension plans of 2.1% (compared to 3.0% as of 2018 year end) represents the single rate that produces the same present value of cash flows as the estimated benefit plan payments. Lowering Snap-on's foreign discount rate assumption by 50 bps would have increased Snap-on's 2019 foreign pension expense and projected benefit obligation by approximately $1.6 million and $26.8 million, respectively.

Actuarial gains and losses in excess of 10 percent of the greater of the projected benefit obligation or market-related value of assets are amortized on a straight-line basis over the average remaining service period of active participants or over the average remaining life expectancy for plans with primarily inactive participants. Prior service costs and credits resulting from plan amendments are amortized in equal annual amounts over the average remaining service period of active participants or over the average remaining life expectancy for plans with primarily inactive participants.

To determine the 2020 net periodic benefit cost, Snap-on is using weighted-average discount rates for its domestic and foreign pension plans of 3.4% and 2.1%, respectively, and an expected return on plan assets for its domestic pension plans of 7.25%. The expected returns on plan assets for foreign pension plans ranged from 1.3% to 5.7% as of 2019 year end. The net change in these two key assumptions from those used in 2019 is expected to increase pension expense in 2020. Other factors, such as changes in plan demographics and discretionary contributions, may further increase or decrease pension expense in 2020. See Note 11 to the Consolidated Financial Statements for further information on pension plans.

Allowance for Doubtful Accounts on Finance Receivables: The allowance for doubtful accounts on finance receivables is maintained at a level management believes is adequate to cover probable losses inherent in Snap-on's finance receivables portfolio as of the reporting date. The allowance represents management's estimate of the losses inherent in the company's receivables portfolio based on ongoing assessments and evaluations of collectability and historical loss experience. Determination of the proper level of the allowance requires management to exercise judgment about the timing, frequency and severity of credit losses that could materially affect the expense for credit losses and, as a result, net earnings. The allowance takes into consideration numerous quantitative and qualitative factors that include receivable type, historical loss experience, loss migration, delinquency trends, collection experience, current economic conditions and credit risk characteristics. Some of these factors are influenced by items such as the customers' financial condition, debt-servicing ability, past payment experience, credit bureau and proprietary Snap-on credit model information, as well as the value of the underlying collateral. Changes in economic conditions and assumptions, including the resulting credit quality metrics relative to the performance of the finance receivable portfolio create uncertainty and could result in a change to both the allowance for doubtful accounts and expense for credit losses.

Management utilizes established policies and procedures in an effort to ensure the estimates and assumptions are well controlled, reviewed and consistently applied. As of December 28, 2019, the ratio of the allowance for doubtful accounts for finance receivables was 3.65%. As of December 29, 2018, the allowance ratio was 3.71%. While management believes it exercises prudent judgment and applies reasonable assumptions in establishing its estimate for the allowance for finance receivables, there can be no assurance that changes in economic conditions or other factors would not adversely impact the financial health of our customers and result in changes to the estimates used in the allowance calculation. For reference, a 100 bps increase in the allowance ratio for finance receivables as of December 28, 2019, would have increased Snap-on's 2019 expense for credit losses and related allowance for doubtful accounts by approximately $16.9 million.

For additional information on Snap-on's allowances for credit losses, see Note 1 and Note 4 to the Consolidated Financial Statements.

Outlook

Snap-on expects to make continued progress in 2020 along its defined runways for coherent growth, leveraging capabilities already demonstrated in the automotive repair arena and developing and expanding its professional customer base, not only in automotive repair, but in adjacent markets, additional geographies and other areas, including extending in critical industries, where the cost and penalties for failure can be high. In pursuit of these initiatives, Snap-on expects that capital expenditures in 2020 will be in a range of $90 million to $100 million.

Snap-on currently anticipates that its full year 2020 effective income tax rate will be in the range of 23% to 24%.

Item 7A: Quantitative and Qualitative Disclosures About Market Risk

Market, Credit and Economic Risks

Market risk is the potential economic loss that may result from adverse changes in the fair value of financial instruments. Snap-on is exposed to market risk from changes in interest rates and foreign currency exchange rates. Snap-on is also exposed to market risk associated with the stock-based portion of its deferred compensation plans. Snap-on monitors its exposure to these risks and attempts to manage the underlying economic exposures through the use of financial instruments such as foreign currency forward contracts, interest rate swap agreements, treasury lock agreements and prepaid equity forward agreements ("equity forwards"). Snap-on does not use derivative instruments for speculative or trading purposes. Snap-on's broad-based business activities help to reduce the impact that volatility in any particular area or related areas may have on its operating earnings as a whole. Snap-on's management takes an active role in the risk management process and has developed policies and procedures that require specific administrative and business functions to assist in the identification, assessment and control of various risks.

Foreign Currency Risk Management

Snap-on has significant international operations and is subject to certain risks inherent with foreign operations that include currency fluctuations. Foreign currency exchange risk exists to the extent that Snap-on has payment obligations or receipts denominated in currencies other than the functional currency, including intercompany loans denominated in foreign currencies. To manage these exposures, Snap-on identifies naturally offsetting positions and then purchases hedging instruments to protect the residual net exposures. See Note 10 to the Consolidated Financial Statements for information on foreign currency risk management.

Interest Rate Risk Management

Snap-on aims to control funding costs by managing the exposure created by the differing maturities and interest rate structures of Snap-on's borrowings through the use of interest rate swap agreements. Treasury lock agreements are used from time to time to manage the potential change in interest rates in anticipation of the possible issuance of fixed rate debt. See Note 10 to the Consolidated Financial Statements for information on interest rate risk management.

Snap-on utilizes a Value-at-Risk ("VAR") model to determine the potential one-day loss in the fair value of its interest rate and foreign exchange-sensitive financial instruments from adverse changes in market factors. The VAR model estimates were made assuming normal market conditions and a 95% confidence level. Snap-on's computations are based on the inter-relationships among movements in various currencies and interest rates (variance/co-variance technique). These inter-relationships were determined by observing interest rate and foreign currency market changes over the preceding quarter.

The estimated maximum potential one-day loss in fair value, calculated using the VAR model, as of 2019 and 2018 year end was $9.9 million and $7.7 million, respectively, on interest rate-sensitive financial instruments, and $0.2 million and $0.1 million, respectively, on foreign currency-sensitive financial instruments. The VAR model is a risk management tool and does not purport to represent actual losses in fair value that will be incurred by Snap-on, nor does it consider the potential effect of favorable changes in market factors.

Stock-based Deferred Compensation Risk Management

Snap-on aims to manage market risk associated with the stock-based portion of its deferred compensation plans through the use of equity forwards. Equity forwards are used to aid in offsetting the potential mark-to-market effect on stock-based deferred compensation from changes in Snap-on's stock price. Since stock-based deferred compensation liabilities increase as the company's stock price rises and decrease as the company's stock price declines, the equity forwards are intended to mitigate the potential impact on compensation expense that may result from such mark-to-market changes. See Note 10 to the Consolidated Financial Statements for additional information on stock-based deferred compensation risk management.

Credit Risk

Credit risk is the possibility of loss from a customer's failure to make payments according to contract terms. Prior to extending credit, each customer is evaluated, taking into consideration various factors, including the customer's financial condition, debt-servicing ability, past payment experience, credit bureau information, and other financial and qualitative factors that may affect the customer's ability to repay, as well as the value of the underlying collateral. Finance receivable credit risk is also monitored regularly through the use of internal proprietary custom scoring models to evaluate each transaction at the time of the application for credit. Snap-on evaluates credit quality through the use of an internal proprietary measuring system that provides a framework to analyze finance receivables on the basis of risk factors of the individual obligor as well as transaction specific risk. The finance receivables are typically monitored through an asset quality review process that closely monitors past due accounts and initiates a progressive collection action process when appropriate.

Counterparty Risk

Snap-on is exposed to credit losses in the event of non-performance by the counterparties to its various financial agreements, including its foreign currency forward contracts, interest rate swap agreements, treasury lock agreements and prepaid equity forward agreements. Snap-on does not obtain collateral or other security to support financial instruments subject to credit risk, but monitors the credit standing of the counterparties and generally enters into agreements with financial institution counterparties with a credit rating of A- or better. Snap-on does not anticipate non-performance by its counterparties, but cannot provide assurances.

Economic Risk

Economic risk is the possibility of loss resulting from economic instability in certain areas of the world. Snap-on continually monitors its exposure in these markets; for example, the company is monitoring the potential effects of the United Kingdom's exit from the European Union, although it is too soon to know what effects this might have on the world economy or the company. Inflation has not had a significant impact on the company.

As a result of the above market, credit and economic risks, net earnings and revenues in any particular period may not be representative of full-year results and may vary significantly from year to year.

Commodity Risk

Snap-on is a purchaser of certain commodities such as steel, natural gas and electricity. The company is also a purchaser of components and parts that are integrated into the company's end products, as well as the purchaser of certain finished goods, all of which may contain various commodities including steel, aluminum, nickel, copper and others. Snap-on's supply of raw materials and purchased components are generally and readily available from numerous suppliers.

The principal raw material used in the manufacture of the company's products is steel, which the company purchases in competitive, price-sensitive markets. To meet Snap-on's high quality standards, the company's steel needs range from specialized alloys, which are available only from a limited group of approved suppliers, to common alloys, which are available from multiple suppliers. Some of these materials have been, and in the future may be, in short supply, particularly in the event of mill shutdowns or production cut backs. As some steel alloys require specialized manufacturing procedures, Snap-on could experience inventory shortages if it were required to use an alternative manufacturer on short notice. Steel and other raw materials, components and certain finished goods inventory can exhibit price and demand cyclicality, including as a result of tariffs and other trade protection measures. Associated unexpected price increases could result in an erosion of the margins on our products or require us to pass higher prices to Snap-on's customers.

Snap-on believes its ability to sell product is also dependent on the number of vehicles on the road, the number of miles driven and the general aging of vehicles. These factors affect the frequency, type and amount of service and repair performed on vehicles by technicians, and therefore affect the demand for the number of technicians, the prosperity of the technicians and, consequently, the demand technicians have for the company's tools, other products and services, and the value technicians place on those products and services. The use of other methods of transportation, including more frequent use of public transportation, could result in a decrease in the use of privately operated vehicles. A decrease in the use of privately operated vehicles may lead to fewer repairs and less demand for the company's products.

To the extent that commodity prices increase and the company does not have firm pricing agreements with its suppliers, the company may experience margin declines to the extent that it is not able to increase the selling prices of its products.

Item 8: Financial Statements and Supplementary Data

The financial statements and schedules are listed in Part IV, Item 15(a) and are incorporated by reference into this Item 8.

Item 9: Changes in and Disagreements With Accountants on Accounting and Financial Disclosure

None.

Item 9A: Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Snap-on maintains a system of disclosure controls and procedures that is designed to provide reasonable assurance that material information relating to the company and its consolidated subsidiaries is timely communicated to the officers who certify Snap-on's financial reports and to other members of senior management and the Board, as appropriate.

In accordance with Rule 13a-15(b) of the Securities Exchange Act of 1934 (the "Exchange Act"), the company's management evaluated, with the participation of the Chief Executive Officer and Chief Financial Officer, the effectiveness of the design and operation of the company's disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) as of December 28, 2019. Based upon their evaluation of these disclosure controls and procedures, the Chief Executive Officer and Chief Financial Officer concluded that the disclosure controls and procedures were effective as of December 28, 2019, to ensure 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 period specified in the Securities and Exchange Commission rules and forms, and to ensure that information required to be disclosed by the company in the reports it files or submits under the Exchange Act is accumulated and communicated to the company's management, including its principal executive and principal financial officers, or persons performing similar functions, as appropriate, to allow timely decisions regarding required disclosure.

Changes in Internal Control

During the quarter ended December 28, 2019, the company completed the design of new controls and the modifications to existing controls as part of its efforts to adopt ASU No. 2016-13, *Financial Instruments - Credit Losses (Topic 326)*, which is effective for the company's 2020 fiscal year. The company's additional controls over financial reporting include implementing a system that allows the company to calculate the company-wide provisions for credit losses on finance and contract receivables for the financial presentation mandated by the new standard, as well as to provide additional disclosure information. There were no other changes in internal controls during the quarter ended December 28, 2019, that have materially affected, or are reasonably likely to materially affect, the company's internal control over financial reporting (as such term is defined in Exchange Act Rules 13a-15(f) and 15d-15(f)).

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 Exchange Act Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934, as amended). Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we evaluated the effectiveness of our internal control over financial reporting based on the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission in *Internal Control - Integrated Framework (2013)*. Based on this assessment, the company's management believes that, as of December 28, 2019, our internal control over financial reporting was effective at a reasonable assurance level. The company's internal control over financial reporting as of December 28, 2019, has been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in its attestation report, which is included herein.

Our management, including the Chief Executive Officer and Chief Financial Officer, does not expect that our internal control over financial reporting will prevent all errors or fraud. Because of inherent limitations, a system of internal control over financial reporting can provide only reasonable assurance and may not prevent or detect misstatements. Further, because of changes in conditions, the effectiveness of internal control over financial reporting may vary over time.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of Snap-on Incorporated:

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of Snap-on Incorporated and subsidiaries (the "Company") as of December 28, 2019, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 28, 2019, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the consolidated financial statements as of and for the year ended December 28, 2019, of the Company and our report dated February 13, 2020, expressed an unqualified opinion on those financial statements and included an explanatory paragraph regarding the Company's adoption of Accounting Standard Update No. 2016-02, Leases (Topic 842).

Basis for Opinion

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

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

Definition and Limitations of Internal Control over Financial Reporting

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

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

/s/ DELOITTE & TOUCHE LLP
Milwaukee, Wisconsin
February 13, 2020

Item 9B: Other Information

None.

PART III

Item 10: Directors, Executive Officers and Corporate Governance

Incorporated by reference to sections entitled "Item 1: Election of Directors," "Corporate Governance Practices and Board Information" and "Other Information" in Snap-on's 2020 Annual Meeting Proxy Statement, which is expected to be mailed to shareholders on or about March 11, 2020 (the "2020 Proxy Statement").

The Section 16(a) filing compliance disclosure pursuant to Item 405 of Regulation S-K is contained in Snap-on's 2020 Proxy Statement in the section entitled "Other Information – Delinquent Section 16(a) Reports," and is incorporated herein by reference.

Information about our Executive Officers

Information regarding Snap-on's executive officers, including their ages, business experience (for at least the last five years) and titles as of December 28, 2019, is presented below:

Nicholas T. Pinchuk (73) – Chairman of the Board of Directors since 2009, President and Chief Executive Officer since December 2007, and President and Chief Operating Officer during 2007. Senior Vice President and President – Worldwide Commercial & Industrial Group from 2002 to 2007. Prior to joining Snap-on, Mr. Pinchuk held various positions, including President of Global Refrigeration Operations and President of Asia Pacific Operations, at Carrier Corporation, a producer of air conditioning, heating and refrigeration systems, and a subsidiary of United Technologies Corporation. Mr. Pinchuk serves on the board of directors of Columbus McKinnon Corporation.

Aldo J. Pagliari (65) – Senior Vice President – Finance and Chief Financial Officer since 2010.

Jesus M. Arregui (54) - Senior Vice President and President – Commercial Group since 2019, President, SNA Europe from 2015 to 2019, and Vice President, SNA Europe Operations from 2008 to 2015.

Anup R. Banerjee (69) – Senior Vice President, Human Resources and Chief Development Officer since 2015, and President, Commercial Group from 2011 to 2015.

Iain Boyd (57) – Vice President, Operations Development since 2015. Vice President – Human Resources from 2007 to 2015.

Timothy L. Chambers (55) – Senior Vice President and President – Snap-on Tools Group since 2019, President, Commercial Group from 2015 to 2019 and President - Equipment from 2014 to 2015.

June C. Lemerand (57) – Vice President and Chief Information Officer since 2017. Vice President of Information Technology Services from 2015 to 2017, and Senior Director, Information Technology Sales and Marketing Applications from 2005 to 2015.

Richard T. Miller (49) – Vice President, General Counsel and Secretary since 2018. Associate General Counsel from 2012 to 2018.

Richard K. Strege (62) – Vice President and Controller since 2017. Vice President, Internal Audit, Controls and Compliance from 2007 to 2017.

Thomas J. Ward (67) – Senior Vice President and President – Repair Systems & Information Group since 2010.

There is no family relationship among the executive officers and there has been no involvement in legal proceedings during the past ten years that would be material to the evaluation of the ability or integrity of any of the executive officers. Executive officers may either be elected by the Board or may be appointed by the Chief Executive Officer at the regular meeting of the Board that follows the Annual Shareholders' Meeting, which is ordinarily held in April each year, or at such other times as new positions are created or vacancies must be filled.

Code of Ethics and Website Disclosure

Snap-on has adopted a written code of ethics that applies to its Chief Executive Officer, Chief Financial Officer, Vice President and Controller, and all other financial officers and executives performing similar functions. Snap-on has posted a copy of the code of ethics in the Investors/Corporate Governance section on the company's website at www.snapon.com. Snap-on will also post any amendments to these documents, or information about any waivers granted to directors or executive officers with respect to the Code of Business Conduct and Ethics, on the company's website at www.snapon.com.

Snap-on intends to satisfy the disclosure requirements under Item 10 of Form 8-K regarding amendments to, or waivers from, the code of ethics by posting such information in the "Investors" section of its corporate website at www.snapon.com.

Item 11: Executive Compensation

The information required by Item 11 is contained in Snap-on's 2020 Proxy Statement in the sections entitled "Executive Compensation," "Board Compensation," "Compensation Committee Report," and "Other Information" and is incorporated herein by reference.

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

The following table sets forth information about Snap-on's equity compensation plans at 2019 year end:

Plan category	Number of securities to be issued upon exercise of outstanding options, warrants and rights (a)	Weighted-average exercise price of outstanding options, warrants and rights (b)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c)
Equity compensation plans approved by security holders	3,592,966 (1)	$ 137.32 (2)	2,913,774 (3)
Equity compensation plans not approved by security holders	64,977 (4)	Not Applicable	– (5)
Total	3,657,943	$ 137.32 (2)	2,913,774 (5)

(1) Includes (i) options to acquire 168,153 shares granted under the 2001 Incentive Stock and Awards Plan (the "2001 Plan"); (ii) options and stock appreciation rights to acquire 3,396,086 shares granted under the 2011 Incentive Stock and Awards Plan (the "2011 Plan," and collectively with the 2001 Plan, the "Incentive Plans"); and (iii) 28,727 shares represented by deferred share units under the Directors' Fee Plan. Excludes 50,528 shares issuable in connection with the vesting of restricted stock units and restricted stock under the 2001 Plan, and 138,218 shares issuable in connection with the vesting of performance share awards, restricted stock units and restricted stock under the 2011 Plan. Also excludes shares of common stock that may be issuable under the employee and franchisee stock purchase plans.

(2) Reflects only the weighted-average exercise price of outstanding stock options and stock appreciation rights granted under the Incentive Plans and does not include shares represented by deferred share units under the Directors' Fee Plan and shares issuable in connection with the vesting of restricted stock units or performance units under the Incentive Plans for which there are no exercise prices. Also excludes shares of common stock that may be issuable under the employee and franchisee stock purchase plans.

(3) Includes (i) 2,024,642 shares reserved for issuance under the 2011 Plan; (ii) 184,146 shares reserved for issuance under the Directors' Fee Plan; and (iii) 704,986 shares reserved for issuance under the employee stock purchase plan.

(4) Consists of deferred share units under Snap-on's Deferred Compensation Plan, which allows elected and appointed officers of Snap-on to defer all or a percentage of their respective annual salary and/or incentive compensation. The deferred share units are payable in shares of Snap-on common stock on a one-for-one basis and are calculated at fair market value. Shares of common stock delivered under the Deferred Compensation Plan are previously issued shares reacquired and held by Snap-on.

(5) The Deferred Compensation Plan provides that Snap-on will make available, as and when required, a sufficient number of shares of common stock to meet the needs of the plan. It further provides that such shares shall be previously issued shares reacquired and held by Snap-on.

The additional information required by Item 12 is contained in Snap-on's 2020 Proxy Statement in the sections entitled "Executive Compensation," "Security Ownership of Certain Beneficial Owners and Management," and "Other Information," and is incorporated herein by reference.

Item 13: Certain Relationships and Related Transactions, and Director Independence

Incorporated by reference to the sections entitled "Corporate Governance Practices and Board Information – Board Information" and "Other Information – Transactions with the Company" in Snap-on's 2020 Proxy Statement.

Item 14: Principal Accounting Fees and Services

Incorporated by reference to the section entitled "Deloitte & Touche LLP Fee Disclosure" in Snap-on's 2020 Proxy Statement.

PART IV

Item 15: Exhibits, Financial Statement Schedules

Item 15(a): Documents Filed as Part of This Report:

1. List of Financial Statements

Unless otherwise indicated, references to "fiscal 2019" or "2019" refer to the fiscal year ended December 28, 2019; references to "fiscal 2018" or "2018" refer to the fiscal year ended December 29, 2018; and references to "fiscal 2017" or "2017" refer to the fiscal year ended December 30, 2017. References to 2019, 2018 and 2017 year end refer to December 28, 2019, December 29, 2018, and December 30, 2017, respectively.

The following consolidated financial statements of Snap-on and the Report of Independent Registered Public Accounting Firm thereon, are filed as part of this report:

- Report of Independent Registered Public Accounting Firm.
- Consolidated Statements of Earnings for the 2019, 2018 and 2017 fiscal years.
- Consolidated Statements of Comprehensive Income for the 2019, 2018 and 2017 fiscal years.
- Consolidated Balance Sheets as of 2019 and 2018 year end.
- Consolidated Statements of Equity for the 2019, 2018 and 2017 fiscal years.
- Consolidated Statements of Cash Flows for the 2019, 2018 and 2017 fiscal years.
- Notes to Consolidated Financial Statements.

2. Financial Statement Schedules

All schedules are omitted because they are not applicable, or the required information is included in the consolidated financial statements or notes thereto.

3. List of Exhibits[(*)]

(3)	(a)	Restated Certificate of Incorporation of Snap-on Incorporated, as amended through April 25, 2013 (incorporated by reference to Exhibit 3.1 to Snap-on's Quarterly Report on Form 10-Q for the quarterly period ended September 28, 2013 (Commission File No. 1-7724))
	(b)	Bylaws of Snap-on Incorporated, as amended and restated as of April 26, 2018 (incorporated by reference to Exhibit 3.1 to Snap-on's Current Report on Form 8-K dated April 26, 2018 (Commission File No. 1-7724))
(4)	(a)	Indenture, dated as of January 8, 2007, between Snap-on Incorporated and U.S. Bank National Association as trustee (incorporated by reference to Exhibit (4)(b) to Form S-3 Registration Statement (Registration No. 333-139863))
	(b)	Officer's Certificate, dated as of August 14, 2009, providing for the $250,000,000 6.125% Notes due 2021 (the "2021 Notes") (incorporated by reference to Exhibit 4.1 to Snap-on's Current Report on Form 8-K dated August 11, 2009 (Commission File No. 1-7724))
	(c)	Officer's Certificate, dated as of February 21, 2017, providing for the $300,000,000 3.25% Notes due 2027 (the "2027 Notes") (incorporated by reference to Exhibit 4.2 to Snap-on's Current Report on Form 8-K dated February 15, 2017 (Commission File No. 1-7724))
	(d)	Officer's Certificate, dated as of February 26, 2018, providing for the $400,000,000 4.10% Notes due 2048 (the "2048 Notes") (incorporated by reference to Exhibit 4.2 to Snap-on's Current Report on Form 8-K dated February 20, 2018 (Commission File No. 1-7724))
	(e)	Description of Securities
	(e)(1)	Description of Common Stock
	(e)(2)	Description of 2021 Notes
	(e)(3)	Description of 2027 Notes
	(e)(4)	Description of 2048 Notes

Except for the foregoing, Snap-on and its subsidiaries have no unregistered long-term debt agreement for which the related outstanding debt exceeds 10% of consolidated total assets as of December 28, 2019. Copies of debt instruments for which the related debt is less than 10% of consolidated total assets will be furnished to the Commission upon request.

(10) Material Contracts

(a) Amended and Restated Snap-on Incorporated 2001 Incentive Stock and Awards Plan (Amended and Restated as of April 27, 2006, as further amended on August 6, 2009) (incorporated by reference to Exhibit 10.1 to Snap-on's Quarterly Report on Form 10-Q for the quarterly period ended October 3, 2009 (Commission File No. 1-7724))** (superseded except as to outstanding awards)

(b) Snap-on Incorporated 2011 Incentive Stock and Awards Plan (As Amended and Restated) (incorporated by reference to Exhibit 10(b) to Snap-on's Annual Report on Form 10-K for the fiscal year ended December 30, 2017 (Commission File No. 1-7724))**

(c) Form of Restated Executive Agreement between Snap-on Incorporated and each of its executive officers** (incorporated by reference to Exhibit 10(c) to Snap-on's Annual Report on Form 10-K for the fiscal year ended December 30, 2017 (Commission File No. 1-7724))**

(d)(1) Form of Indemnification Agreement between Snap-on Incorporated and certain executive officers (incorporated by reference to Exhibit 10.1 to Snap-on's Annual Report on Form 10-K for the fiscal year ended January 1, 2011 (Commission File No. 1-7724))**

(d)(2) Form of Indemnification Agreement between Snap-on Incorporated and directors (incorporated by reference to Exhibit 10.1 to Snap-on's Annual Report on Form 10-K for the fiscal year ended January 1, 2011 (Commission File No. 1-7724))**

(e)(1) Amended and Restated Snap-on Incorporated Directors' 1993 Fee Plan (as amended through August 5, 2010) (incorporated by reference to Exhibit 10.1 to Snap-on's Quarterly Report on Form 10-Q for the quarterly period ended October 2, 2010 (Commission File No. 1-7724))**

(e)(2) Amendment to Amended and Restated Snap-on Incorporated Directors' 1993 Fee Plan (incorporated by reference to Exhibit 10(e)(2) to Snap-on's Annual Report on Form 10-K for the fiscal year ended December 28, 2013 (Commission File No. 1-7724))**

(f)(1) Snap-on Incorporated Deferred Compensation Plan (as amended and restated as of September 1, 2011) (incorporated by reference to Exhibit 10(g) to Snap-on's Annual Report on Form 10-K for the fiscal year ended December 31, 2011 (Commission File No. 1-7724))**

(f)(2) Amendment to Snap-on Incorporated Deferred Compensation Plan (incorporated by reference to Exhibit 10(f)(2) to Snap-on's Annual Report on Form 10-K for the fiscal year ended December 28, 2013 (Commission File No. 1-7724))**

(g) Snap-on Incorporated Supplemental Retirement Plan for Officers (as amended through June 11, 2010) (incorporated by reference to Exhibit 10.2 to Snap-on's Quarterly Report on Form 10-Q for the quarterly period ended July 3, 2010 (Commission File No. 1-7724))**

(h) Form of Non-Qualified Stock Option Agreement under the 2001 Incentive Stock and Awards Plan (and accompanying Non-Qualified Stock Option Grant Offer Letter) (incorporated by reference to Exhibit 10.1 to Snap-on's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2007 (Commission File No. 1-7724))** (superseded except as to outstanding awards)

(i) Form of Restricted Stock Unit Agreement for Directors under the 2001 Incentive Stock and Awards Plan (and accompanying Restricted Stock Unit Offer Letter) (incorporated by reference to Exhibit 10.2 to Snap-on's Quarterly Report on Form 10-Q for the quarterly period ended October 3, 2009 (Commission File No. 1-7724))** (superseded except as to outstanding awards)

(j) Form of Non-Qualified Stock Option Agreement under the 2011 Incentive Stock and Awards Plan (and accompanying Non-Qualified Stock Option Grant Offer Letter) (incorporated by reference to Exhibit 10.1 to Snap-on's Quarterly Report on Form 10-Q for the quarterly period ended October 1, 2011 (Commission File No. 1-7724))**

(k) Form of Performance Share Unit Award Agreement under the 2011 Incentive Stock and Awards Plan (incorporated by reference to Exhibit 10.1 to Snap-on's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2012 (Commission File No. 1-7724))**

(l) Form of Restricted Unit Award Agreement for Executive Officers under the 2011 Incentive Stock and Awards Plan (incorporated by reference to Exhibit 10.1 to Snap-on's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2012 (Commission File No. 1-7724))**

(m) Form of Restricted Unit Award Agreement for Directors under the 2011 Incentive Stock and Awards Plan (incorporated by reference to Exhibit 10.1 to Snap-on's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2012 (Commission File No. 1-7724))**

(n) Form of Restricted Stock Award Agreement for Directors under the 2011 Incentive Stock and Awards Plan (incorporated by reference to Exhibit 10.1 to Snap-on's Quarterly Report on Form 10-Q for the quarterly period ended March 30, 2013 (Commission File No. 1-7724))**

(o) Third Amended and Restated Five Year Credit Agreement, dated as of September 16, 2019, among Snap-on Incorporated and the lenders and agents listed on the signature pages thereof, and JPMorgan Chase Bank, N.A., Citibank N.A. and U.S. Bank National Association as joint lead arrangers and joint bookrunners (incorporated by reference to Exhibit 10.1 to Snap-on's Current Report on Form 8-K dated September 16, 2019 (Commission File No. 1-7724))

(14) Snap-on Incorporated Section 406 of the Sarbanes-Oxley Act Code of Ethics (incorporated by reference to Exhibit 10(aa) to Snap-on's Annual Report on Form 10-K for the fiscal year ended January 3, 2004 (Commission File No. 1-7724))

(21) Subsidiaries of the Corporation

(23) Consent of Independent Registered Public Accounting Firm

(31.1) Certification of the Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

(31.2) Certification of the Principal Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

(32.1) Certification of Chief Executive Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

(32.2) Certification of Principal Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

(101.INS) Inline XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL (Extensible Business Reporting Language) tags are embedded within the Inline XBRL document

(101.SCH) Inline XBRL Taxonomy Extension Schema Document

(101.CAL) Inline XBRL Taxonomy Extension Calculation Linkbase Document

(101.DEF) Inline XBRL Taxonomy Extension Definition Linkbase Document

(101.LAB) Inline XBRL Taxonomy Extension Label Linkbase Document

(101.PRE) Inline XBRL Taxonomy Extension Presentation Linkbase Document

(104) Cover Page Interactive Data File (contained in Exhibit 101)

---

* Filed electronically or incorporated by reference as an exhibit to this Annual Report on Form 10-K. Copies of any materials the company files with the SEC can also be obtained free of charge through the SEC's website at www.sec.gov.

** Represents a management compensatory plan or agreement.

Item 16: Form 10-K Summary

None.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders and of Snap-on Incorporated:

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Snap-on Incorporated and subsidiaries (the "Company") as of December 28, 2019, and December 29, 2018, and the related consolidated statements of earnings, comprehensive income, equity, and cash flows for each of the three years in the period ended December 28, 2019, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 28, 2019, and December 29, 2018, and the results of its operations and its cash flows for each of the three years in the period ended December 28, 2019, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the Company's internal control over financial reporting as of December 28, 2019, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 13, 2020, expressed an unqualified opinion on the Company's internal control over financial reporting.

Change in Accounting Principle

As discussed in Note 1 to the consolidated financial statements, the Company changed its method of accounting for leases in the year ended December 28, 2019 due to the adoption of Accounting Standard Update No. 2016-02, *Leases* (Topic 842) under the modified retrospective adoption method.

Basis for Opinion

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

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

Critical Audit Matter

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

Finance Receivables - Net - Refer to Notes 1 and 4 to the financial statements

Critical Audit Matter Description

The Company's finance receivables are comprised of extended-term installment payment contracts to both technicians and independent shop owners (i.e., franchisees' customers) to enable them to purchase tools, diagnostics, and equipment products on an extended-term payment plan, generally with average payment terms of approximately four years. The receivables are generally secured by the underlying tools and/or diagnostic or equipment products financed. At December 28, 2019, these loans totaled $1,695.5 million with an allowance of $61.9 million recorded against the receivables. The Company estimates and records an allowance for doubtful accounts to absorb probable losses on a pool basis that incorporates historical loss experience, current portfolio characteristics, and other qualitative factors.

Evaluating the judgments related to the finance receivable allowance for doubtful accounts is subjective and requires auditor judgment to effectively evaluate whether management's judgments were reasonable.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the finance receivables allowance for doubtful accounts balance included the following procedures, among others:

- We tested the design and operating effectiveness of management's controls over the allowance for doubtful accounts including controls over data integrity.
- We tested charge-offs, portfolio characteristics, delinquencies, and other data used in management's allowance for doubtful accounts calculation.
- We tested the mathematical accuracy of the allowance for doubtful accounts calculation.
- We evaluated the reserve results considering the credit environment, including other relevant macroeconomic factors, as well as performed an industry analysis to evaluate the trends in the Company's allowance for doubtful accounts over time.
- We performed a trending analysis based on net losses as compared to movements in the Company's allowance to highlight any inconsistencies.

/s/ DELOITTE & TOUCHE LLP
Milwaukee, Wisconsin
February 13, 2020

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

(Amounts in millions, except per share data)	2019	2018	2017
Net sales	$ 3,730.0	$ 3,740.7	$ 3,686.9
Cost of goods sold	(1,886.0)	(1,870.7)	(1,861.0)
Gross profit	1,844.0	1,870.0	1,825.9
Operating expenses	(1,127.6)	(1,144.0)	(1,161.3)
Operating earnings before financial services	716.4	726.0	664.6
Financial services revenue	337.7	329.7	313.4
Financial services expenses	(91.8)	(99.6)	(95.9)
Operating earnings from financial services	245.9	230.1	217.5
Operating earnings	962.3	956.1	882.1
Interest expense	(49.0)	(50.4)	(52.4)
Other income (expense) – net	8.8	4.2	(7.8)
Earnings before income taxes and equity earnings	922.1	909.9	821.9
Income tax expense	(211.8)	(214.4)	(250.9)
Earnings before equity earnings	710.3	695.5	571.0
Equity earnings, net of tax	0.9	0.7	1.2
Net earnings	711.2	696.2	572.2
Net earnings attributable to noncontrolling interests	(17.7)	(16.3)	(14.5)
Net earnings attributable to Snap-on Incorporated	$ 693.5	$ 679.9	$ 557.7
Net earnings per share attributable to Snap-on Incorporated:			
Basic	$ 12.59	$ 12.08	$ 9.72
Diluted	12.41	11.87	9.52
Weighted-average shares outstanding:			
Basic	55.1	56.3	57.4
Effect of dilutive securities	0.8	1.0	1.2
Diluted	55.9	57.3	58.6

See Notes to Consolidated Financial Statements.

(Amounts in millions)	2019	2018	2017
Comprehensive income (loss):			
Net earnings	$ 711.2	$ 696.2	$ 572.2
Other comprehensive income (loss):			
Foreign currency translation*	(9.5)	(95.4)	135.2
Unrealized cash flow hedges, net of tax:			
Other comprehensive income (loss) before reclassifications	—	(0.8)	6.9
Reclassification of cash flow hedges to net earnings	(1.5)	(1.5)	(1.6)
Defined benefit pension and postretirement plans:			
Net prior service costs and credits and unrecognized (loss) gain	(6.7)	(79.0)	15.9
Income tax (expense) benefit	0.2	20.0	(4.1)
Net of tax	(6.5)	(59.0)	11.8
Amortization of net prior service costs and credits and unrecognized loss included in net periodic benefit cost	23.5	31.1	26.6
Income tax benefit	(5.8)	(7.6)	(9.4)
Net of tax	17.7	23.5	17.2
Total comprehensive income	711.4	563.0	741.7
Comprehensive income attributable to noncontrolling interests	(17.7)	(16.3)	(14.5)
Comprehensive income attributable to Snap-on Incorporated	$ 693.7	$ 546.7	$ 727.2

* There is no reclassification adjustment as there was no sale or liquidation of any foreign entity during any period presented.

See Notes to Consolidated Financial Statements.

(Amounts in millions, except share data)	Fiscal Year End 2019	Fiscal Year End 2018
ASSETS		
Current assets:		
Cash and cash equivalents	$ 184.5	$ 140.9
Trade and other accounts receivable – net	694.6	692.6
Finance receivables – net	530.1	518.5
Contract receivables – net	100.7	98.3
Inventories – net	760.4	673.8
Prepaid expenses and other assets	110.2	92.8
Total current assets	2,380.5	2,216.9
Property and equipment – net	521.5	495.1
Operating lease right-of-use assets	55.6	—
Deferred income tax assets	52.3	64.7
Long-term finance receivables – net	1,103.5	1,074.4
Long-term contract receivables – net	360.1	344.9
Goodwill	913.8	902.2
Other intangibles – net	243.9	232.9
Other assets	62.3	42.0
Total assets	$ 5,693.5	$ 5,373.1
LIABILITIES AND EQUITY		
Current liabilities:		
Notes payable	$ 202.9	$ 186.3
Accounts payable	198.5	201.1
Accrued benefits	53.3	52.0
Accrued compensation	53.9	71.5
Franchisee deposits	68.2	67.5
Other accrued liabilities	370.8	373.6
Total current liabilities	947.6	952.0
Long-term debt	946.9	946.0
Deferred income tax liabilities	69.3	41.4
Retiree health care benefits	33.6	31.8
Pension liabilities	122.1	171.3
Operating lease liabilities	37.5	—
Other long-term liabilities	105.7	112.0
Total liabilities	2,262.7	2,254.5
Commitments and contingencies (Note 15)		
Equity		
Shareholders’ equity attributable to Snap-on Incorporated:		
Preferred stock (authorized 15,000,000 shares of $1 par value; none outstanding)	—	—
Common stock (authorized 250,000,000 shares of $1 par value; issued 67,423,106 and 67,415,091 shares, respectively)	67.4	67.4
Additional paid-in capital	379.1	359.4
Retained earnings	4,779.7	4,257.6
Accumulated other comprehensive loss	(507.9)	(462.2)
Treasury stock at cost (12,772,882 and 11,804,310 shares, respectively)	(1,309.2)	(1,123.4)
Total shareholders’ equity attributable to Snap-on Incorporated	3,409.1	3,098.8
Noncontrolling interests	21.7	19.8
Total equity	3,430.8	3,118.6
Total liabilities and equity	$ 5,693.5	$ 5,373.1

See Notes to Consolidated Financial Statements.

	Shareholders' Equity Attributable to Snap-on Incorporated						
(Amounts in millions, except share data)	Common Stock	Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Treasury Stock	Noncontrolling Interests	Total Equity
Balance at December 31, 2016	**$ 67.4**	**$ 317.3**	**$ 3,384.9**	**$ (498.5)**	**$ (653.9)**	**$ 18.0**	**$ 2,635.2**
Net earnings for 2017	—	—	557.7	—	—	14.5	572.2
Other comprehensive income	—	—	—	169.5	—	—	169.5
Cash dividends – $2.95 per share	—	—	(169.4)	—	—	—	(169.4)
Stock compensation plans	—	25.9	—	—	41.8	—	67.7
Share repurchases – 1,820,000 shares	—	—	—	—	(287.9)	—	(287.9)
Other	—	—	(0.9)	—	—	(14.1)	(15.0)
Balance at December 30, 2017	**67.4**	**343.2**	**3,772.3**	**(329.0)**	**(900.0)**	**18.4**	**2,972.3**
Net earnings for 2018	—	—	679.9	—	—	16.3	696.2
Other comprehensive loss	—	—	—	(133.2)	—	—	(133.2)
Cash dividends – $3.41 per share	—	—	(192.0)	—	—	—	(192.0)
Stock compensation plans	—	16.2	—	—	60.7	—	76.9
Share repurchases – 1,769,000 shares	—	—	—	—	(284.1)	—	(284.1)
Other	—	—	(2.6)	—	—	(14.9)	(17.5)
Balance at December 29, 2018	**67.4**	**359.4**	**4,257.6**	**(462.2)**	**(1,123.4)**	**19.8**	**3,118.6**
Impact of the Tax Act on Accumulated Other Comprehensive Income (ASU No. 2018-02)	—	—	45.9	(45.9)	—	—	—
Balance at December 30, 2018	67.4	359.4	4,303.5	(508.1)	(1,123.4)	19.8	3,118.6
Net earnings for 2019	—	—	693.5	—	—	17.7	711.2
Other comprehensive income	—	—	—	0.2	—	—	0.2
Cash dividends – $3.93 per share	—	—	(216.6)	—	—	—	(216.6)
Stock compensation plans	—	19.7	—	—	52.6	—	72.3
Share repurchases – 1,495,000 shares	—	—	—	—	(238.4)	—	(238.4)
Other	—	—	(0.7)	—	—	(15.8)	(16.5)
Balance at December 28, 2019	**$ 67.4**	**$ 379.1**	**$ 4,779.7**	**$ (507.9)**	**$ (1,309.2)**	**$ 21.7**	**$ 3,430.8**

See Notes to Consolidated Financial Statements.

(Amounts in millions)	2019	2018	2017
Operating activities:			
Net earnings	$ 711.2	$ 696.2	$ 572.2
Adjustments to reconcile net earnings to net cash provided (used) by operating activities:			
Depreciation	70.1	68.8	65.6
Amortization of other intangibles	22.3	25.3	27.6
Provision for losses on finance receivables	49.9	57.5	54.6
Provision for losses on non-finance receivables	18.3	12.8	10.5
Stock-based compensation expense	23.8	27.2	30.3
Deferred income tax provision	34.2	13.7	12.3
Loss (gain) on sales of assets	0.9	0.5	(0.2)
Settlement of treasury lock	—	—	14.9
Loss on early extinguishment of debt	—	7.8	—
Changes in operating assets and liabilities, net of effects of acquisitions:			
Trade and other accounts receivable	(15.7)	(47.7)	(55.5)
Contract receivables	(20.9)	(30.9)	(41.8)
Inventories	(97.0)	(38.6)	(76.0)
Prepaid and other assets	(22.2)	10.4	(10.0)
Accounts payable	(2.6)	27.5	(2.2)
Accruals and other liabilities	(97.7)	(66.0)	6.2
Net cash provided by operating activities	674.6	764.5	608.5
Investing activities:			
Additions to finance receivables	(841.9)	(865.6)	(892.0)
Collections of finance receivables	754.3	747.7	712.7
Capital expenditures	(99.4)	(90.9)	(82.0)
Acquisitions of businesses, net of cash acquired	(38.6)	(3.0)	(82.9)
Disposals of property and equipment	1.7	0.7	1.5
Other	1.8	0.9	1.3
Net cash used by investing activities	(222.1)	(210.2)	(341.4)
Financing activities:			
Proceeds from issuance of long-term debt	—	395.4	297.8
Repayments of long-term debt	—	(457.8)	(150.0)
Proceeds from notes payable	—	—	16.8
Repayments of notes payable	—	(16.8)	(4.5)
Net increase in other short-term borrowings	17.6	21.7	18.3
Cash dividends paid	(216.6)	(192.0)	(169.4)
Purchases of treasury stock	(238.4)	(284.1)	(287.9)
Proceeds from stock purchase and option plans	51.4	55.5	46.2
Other	(23.4)	(24.1)	(23.4)
Net cash used by financing activities	(409.4)	(502.2)	(256.1)
Effect of exchange rate changes on cash and cash equivalents	0.5	(3.2)	3.4
Increase in cash and cash equivalents	43.6	48.9	14.4
Cash and cash equivalents at beginning of year	140.9	92.0	77.6
Cash and cash equivalents at end of year	$ 184.5	$ 140.9	$ 92.0
Supplemental cash flow disclosures:			
Cash paid for interest	$ (46.3)	$ (51.5)	$ (51.2)
Net cash paid for income taxes	(191.2)	(188.0)	(228.1)

See Notes to Consolidated Financial Statements.

Note 1: Summary of Accounting Policies

Principles of consolidation and presentation: The Consolidated Financial Statements include the accounts of Snap-on Incorporated and its wholly-owned and majority-owned subsidiaries (collectively, "Snap-on" or "the company").

Snap-on accounts for investments in unconsolidated affiliates where Snap-on has a non-significant ownership interest under the equity method of accounting. Investments in unconsolidated affiliates of $18.8 million as of December 28, 2019, and $18.5 million as of December 29, 2018, are included in "Other assets" on the accompanying Consolidated Balance Sheets; no equity investment dividends were received in any period presented.

In the normal course of business, the company may purchase products or services from, or sell products or services to, unconsolidated affiliates. Purchases from unconsolidated affiliates were $10.4 million, $11.2 million and $11.6 million in 2019, 2018 and 2017, respectively, and sales to unconsolidated affiliates were $0.6 million in 2019, $0.8 million in 2018 and $0.5 million in 2017. The Consolidated Financial Statements do not include the accounts of the company's independent franchisees. Snap-on's Consolidated Financial Statements are prepared in conformity with generally accepted accounting principles in the United States of America ("GAAP"). Intercompany accounts and transactions have been eliminated.

Fiscal year accounting period: Snap-on's fiscal year ends on the Saturday that is on or nearest to December 31. The 2019 fiscal year ended on December 28, 2019 ("2019"). The 2018 fiscal year ended on December 29, 2018 ("2018"). The 2017 fiscal year ended on December 30, 2017 ("2017"). The 2019, 2018 and 2017 fiscal years each contained 52 weeks of operating results.

Use of estimates: The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Financial instruments: The fair value of the company's derivative financial instruments is generally determined using quoted prices in active markets for similar assets and liabilities. The carrying value of the company's non-derivative financial instruments either approximates fair value, due to their short-term nature, or the amount disclosed for fair value is based upon a discounted cash flow analysis or quoted market values. See Note 10 for further information on financial instruments.

Revenue recognition: Snap-on recognizes revenue from the sale of tools, diagnostic and equipment products and related services based on when control of the product passes to the customer or the service is provided and is recognized at an amount that reflects the consideration expected to be received in exchange for such goods or services. See Note 2 for information on revenue recognition.

Financial services revenue: Snap-on also generates revenue from various financing programs that include: (i) installment sales and lease contracts arising from franchisees' customers and Snap-on customers who require financing for the purchase or lease of tools and diagnostic and equipment products on an extended-term payment plan; and (ii) business loans and vehicle leases to franchisees. These financing programs are offered through Snap-on's wholly owned finance subsidiaries. Financial services revenue consists primarily of interest income on finance and contract receivables and is recognized over the life of the underlying contracts, with interest computed primarily on the average daily balances of the underlying contracts.

The decision to finance through Snap-on or another financing source is solely at the election of the customer. When assessing customers for potential financing, Snap-on considers various factors regarding ability to pay, including the customers' financial condition, debt-servicing ability, past payment experience, and credit bureau and proprietary Snap-on credit model information, as well as the value of the underlying collateral. For finance receivables, Snap-on assesses these factors through the use of credit quality indicators consisting primarily of customer credit risk scores combined with internal credit risk grades, collection experience, franchise input and other internal metrics. For contract receivables, Snap-on assesses these factors through the use of credit quality indicators consisting primarily of customer credit risk scores combined with internal credit risk grades, collection experience and other internal metrics.

Financial services lease arrangements: Snap-on accounts for its financial services leases as sales-type leases. The company recognizes the net investment in the lease as the present value of the lease payments not yet received plus the present value of the unguaranteed residual value, using the interest rate implicit in the lease. The difference between the undiscounted lease payments received over the lease term and the related net investment in the lease is reported as unearned finance charges. Unearned finance charges are amortized to income over the life of the contract. The default covenants included in the lease arrangements are usual and customary, consistent with industry practice, and do not impact the lease classification. Except in circumstances where the company has concluded that a lessee's financial condition has deteriorated, the other default covenants under Snap-on's lease arrangements are objectively determinable. See Notes 4 and 16 for further information on finance and contract receivables and lessor accounting.

Research and engineering: Snap-on incurred research and engineering costs of $59.1 million, $61.2 million and $60.9 million in 2019, 2018 and 2017, respectively. Research and engineering costs are included in "Operating expenses" on the accompanying Consolidated Statements of Earnings.

Internally developed software: Costs incurred in the development of software that will ultimately be sold are capitalized from the time technological feasibility has been attained and capitalization ceases when the related product is ready for general release. During 2019, 2018 and 2017, Snap-on capitalized $12.6 million, $9.7 million and $11.3 million, respectively, of such costs. Amortization of capitalized software development costs, which is included in "Cost of goods sold" on the accompanying Consolidated Statements of Earnings, was $10.1 million in 2019, $13.4 million in 2018 and $14.7 million in 2017. Unamortized capitalized software development costs of $42.6 million as of 2019 year end and $40.2 million as of 2018 year end are included in "Other intangibles – net" on the accompanying Consolidated Balance Sheets.

Internal-use software: Costs that are incurred in creating software solutions and enhancements to those solutions are capitalized only for the application development stage of the project.

Shipping and handling: Amounts billed to customers for shipping and handling are included as a component of sales. Costs incurred by Snap-on for shipping and handling are included as a component of cost of goods sold when the costs relate to manufacturing activities. In 2019, 2018 and 2017, Snap-on incurred shipping and handling charges of $56.5 million, $53.7 million and $49.7 million, respectively, that were recorded in "Cost of goods sold" on the accompanying Consolidated Statements of Earnings. Shipping and handling costs incurred in conjunction with selling or distribution activities are included as a component of operating expenses. Shipping and handling charges were $88.7 million in 2019, $84.3 million in 2018 and $82.3 million in 2017; these charges were recorded in "Operating expenses" on the accompanying Consolidated Statements of Earnings.

Advertising and promotion: Production costs of future media advertising are deferred until the advertising occurs. All other advertising and promotion costs are expensed when incurred. For 2019, 2018 and 2017, advertising and promotion expenses totaled $47.7 million, $55.6 million and $55.7 million, respectively. Advertising and promotion costs are included in "Operating expenses" on the accompanying Consolidated Statements of Earnings.

Warranties: Snap-on provides product warranties for specific product lines and accrues for estimated future warranty costs in the period in which the sale is recorded. See Notes 2 and 15 for information on warranties.

Foreign currency: The financial statements of Snap-on's foreign subsidiaries are translated into U.S. dollars. Assets and liabilities of foreign subsidiaries are translated at current rates of exchange, and income and expense items are translated at the average exchange rates for the period. The resulting translation adjustments are recorded directly into "Accumulated other comprehensive loss" on the accompanying Consolidated Balance Sheets. Foreign exchange transactions, net of foreign currency hedges, resulted in pretax losses of $3.6 million, $3.9 million and $7.0 million in 2019, 2018 and 2017, respectively. Foreign exchange transaction gains and losses are reported in "Other income (expense) – net" on the accompanying Consolidated Statements of Earnings.

Income taxes: Current tax assets and liabilities are based upon an estimate of taxes refundable or payable for each of the jurisdictions in which the company is subject to tax. In the ordinary course of business, there is inherent uncertainty in quantifying income tax positions. Snap-on assesses income tax positions and records tax benefits for all years subject to examination based upon management's evaluation of the facts, circumstances and information available at the reporting dates. For those tax positions where it is more-likely-than-not that a tax benefit will be sustained, Snap-on records the largest amount of tax benefit with a greater than 50% likelihood of being realized upon ultimate settlement with a taxing authority that has full knowledge of all relevant information. For those income tax positions where it is not more-likely-than-not that a tax benefit will be sustained, no tax benefit is recognized in the financial statements. When applicable, associated interest and penalties are recognized as a component of income tax expense. Accrued interest and penalties are included within the related tax asset or liability on the accompanying Consolidated Balance Sheets.

Deferred income taxes are provided for temporary differences arising from differences in bases of assets and liabilities for tax and financial reporting purposes. Deferred income taxes are recorded on temporary differences using enacted tax rates in effect for the year in which the temporary differences are expected to reverse. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in income in the period that includes the enactment date. Deferred tax assets are reduced by a valuation allowance when, in the opinion of management, it is more-likely-than-not that some portion or all of the deferred tax assets will not be realized. See Note 8 for further information on income taxes.

Per share data: Basic earnings per share calculations were computed by dividing net earnings attributable to Snap-on Incorporated by the corresponding weighted-average number of common shares outstanding for the period. The dilutive effect of the potential exercise of outstanding options and stock-settled stock appreciation rights ("SARs") to purchase common shares is calculated using the treasury stock method. As of December 28, 2019, there were 1,215,695 awards outstanding that were anti-dilutive; as of December 29, 2018, there were 685,533 awards outstanding that were anti-dilutive; and as of December 30, 2017 there were 722,715 awards outstanding that were anti-dilutive. Performance-based equity awards are included in the diluted earnings per share calculation based on the attainment of the applicable performance metrics to date. Snap-on had dilutive securities totaling 748,395 shares, 986,984 shares and 1,207,285 shares, as of the end of 2019, 2018 and 2017, respectively. See Note 13 for further information on equity awards.

Stock-based compensation: Snap-on recognizes the cost of employee services in exchange for awards of equity instruments based on the grant date fair value of those awards. That cost, based on the estimated number of awards that are expected to vest, is recognized on a straight-line basis over the period during which the employee is required to provide the service in exchange for the award. No compensation cost is recognized for awards for which employees do not render the requisite service. The grant date fair value of employee stock options and similar instruments is estimated using the Black-Scholes valuation model.

The Black-Scholes valuation model requires the input of subjective assumptions, including the expected life of the stock-based award and stock price volatility. The assumptions used are management's best estimates, but the estimates involve inherent uncertainties and the application of management judgment. As a result, if other assumptions had been used, the recorded stock-based compensation expense could have been materially different from that depicted in the financial statements. See Note 13 for further information on stock-based compensation.

Derivatives: Snap-on utilizes derivative financial instruments, including foreign currency forward contracts, interest rate swap agreements, treasury lock agreements and prepaid equity forward agreements to manage its exposures to foreign currency exchange rate risks, interest rate risks, and market risk associated with the stock-based portion of its deferred compensation plans. Snap-on accounts for its derivative instruments at fair value. Snap-on does not use financial instruments for speculative or trading purposes. See Note 10 for further information on derivatives.

Cash equivalents: Snap-on considers all highly liquid investments with an original maturity of three months or less to be cash equivalents. There were no cash equivalents as of 2019 and 2018 year ends.

Receivables and allowances for doubtful accounts: All trade, finance and contract receivables are reported on the Consolidated Balance Sheets at their outstanding principal balance adjusted for any charge-offs and net of allowances for doubtful accounts. Finance and contract receivables also include accrued interest and contract acquisition costs, net of contract acquisition fees.

Snap-on maintains allowances for doubtful accounts to absorb probable losses inherent in its portfolio of receivables. The allowances for doubtful accounts represent management's estimate of the losses inherent in the company's receivables portfolio based on ongoing assessments and evaluations of collectability and historical loss experience. In estimating losses inherent in each of its receivable portfolios (trade, finance and contract receivables), Snap-on uses historical loss experience rates by portfolio and applies them to a related aging analysis. Determination of the proper level of allowances by portfolio requires management to exercise judgment about the timing, frequency and severity of credit losses that could materially affect the allowance for doubtful accounts and, as a result, net earnings. The allowances take into consideration numerous quantitative and qualitative factors that include receivable type, historical loss experience, loss migration, delinquency trends, collection experience, current economic conditions and credit risk characteristics as follows:

- Snap-on evaluates the collectability of receivables based on a combination of various financial and qualitative factors that may affect its customers' ability to pay. These factors may include customers' financial condition, debt-servicing ability, past payment experience, and credit bureau and proprietary Snap-on credit model information, as well as the value of the underlying collateral.
- For finance and contract receivables, Snap-on assesses quantitative and qualitative factors through the use of credit quality indicators consisting primarily of collection experience and other internal metrics as follows:
    - Collection experience – Snap-on conducts monthly reviews of credit and collection performance for each of its finance and contract receivable portfolios focusing on data such as delinquency trends, non-performing assets, and charge-off and recovery activity. These reviews allow for the formulation of collection strategies and potential collection policy modifications in response to changing risk profiles in the finance and contract receivable portfolios.
    - Other internal metrics – Snap-on maintains a system that aggregates credit exposure by customer, risk classification and geographical area, among other factors, to further monitor changing risk profiles.

Management performs detailed reviews of its receivables on a monthly and/or quarterly basis to assess the adequacy of the allowances based on historical and current trends and other factors affecting credit losses and to determine if any impairment has occurred. A receivable is impaired when it is probable that all amounts related to the receivable will not be collected according to the contractual terms of the agreement. Additions to the allowances for doubtful accounts are maintained through adjustments to the allowances, which are charged to current period earnings; amounts determined to be uncollectable are charged directly against the allowances, while amounts recovered on previously charged-off accounts increase the allowances. Net charge-offs include the principal amount of losses charged-off as well as charged-off interest and fees. Recovered interest and fees previously charged-off are recorded through the allowances for doubtful accounts and increase the allowances. Finance receivables are assessed for charge-off when an account becomes 120 days past due and are charged-off typically within 60 days of asset repossession. Contract receivables related to equipment leases are generally charged-off when an account becomes 150 days past due, while contract receivables related to franchise finance and van leases are generally charged-off up to 180 days past the asset return date. For finance and contract receivables, customer bankruptcies are generally charged-off upon notification that the associated debt is not being reaffirmed or, in any event, no later than 180 days past due.

Snap-on does not believe that its trade accounts, finance or contract receivables represent significant concentrations of credit risk because of the diversified portfolio of individual customers and geographical areas. See Note 4 for further information on receivables and allowances for doubtful accounts.

Other accrued liabilities: Supplemental balance sheet information for “Other accrued liabilities” as of 2019 and 2018 year end is as follows:

(Amounts in millions)	2019	2018
Income taxes	$ 23.9	$ 34.4
Accrued warranty	17.3	17.1
Operating lease liability	19.5	—
Deferred subscription revenue	55.1	47.3
Accrued new tool return	50.9	43.7
Accrued property, payroll and other taxes	38.6	40.1
Accrued selling and promotion expense	28.3	28.7
Accrued legal charges	—	30.9
Other	137.2	131.4
Total other accrued liabilities	$ 370.8	$ 373.6

Inventories: Snap-on values its inventory at the lower of cost or market and adjusts for the value of inventory that is estimated to be excess, obsolete or otherwise unmarketable. Snap-on records allowances for excess and obsolete inventory based on historical and estimated future demand and market conditions. Allowances for raw materials are largely based on an analysis of raw material age and actual physical inspection of raw material for fitness for use. As part of evaluating the adequacy of allowances for work-in-progress and finished goods, management reviews individual product stock-keeping units (SKUs) by product category and product life cycle. Cost adjustments for each product category/product life-cycle state are generally established and maintained based on a combination of historical experience, forecasted sales and promotions, technological obsolescence, inventory age and other actual known conditions and circumstances. Should actual product marketability and raw material fitness for use be affected by conditions that are different from management estimates, further adjustments to inventory allowances may be required.

Snap-on adopted the “last-in, first-out” (“LIFO”) inventory valuation method in 1973 for its U.S. locations. Snap-on’s U.S. inventories accounted for on a LIFO basis consist of purchased product and inventory manufactured at the company’s heritage U.S. manufacturing facilities (primarily hand tools and tool storage). Since Snap-on began acquiring businesses in the 1990’s, the company has used the “first-in, first-out” (“FIFO”) inventory valuation methodology for acquisitions; the company does not adopt the LIFO inventory valuation methodology for new acquisitions. See Note 5 for further information on inventories.

Property and equipment: Property and equipment is stated at cost less accumulated depreciation and amortization. Depreciation and amortization are provided on a straight-line basis over estimated useful lives. Major repairs that extend the useful life of an asset are capitalized, while routine maintenance and repairs are expensed as incurred. Capitalized software included in property and equipment reflects costs related to internally developed or purchased software for internal use and is amortized on a straight-line basis over their estimated useful lives. Long-lived assets are evaluated for impairment when events or circumstances indicate that the carrying amount of the long-lived asset may not be recoverable. See Note 6 for further information on property and equipment.

Goodwill and other intangible assets: Goodwill and other indefinite-lived assets are tested for impairment annually or more frequently if events or changes in circumstances indicate that the assets might be impaired. Annual impairment tests are performed by the company in the second quarter of each year using information available as of April month end. Snap-on evaluates the existence of goodwill and indefinite-lived intangible asset impairment on the basis of whether the assets are fully recoverable from projected, discounted cash flows of the related reportable unit or asset. Intangible assets with finite lives are amortized over their estimated useful lives using straight-line and accelerated methods depending on the nature of the particular asset. See Note 7 for further information on goodwill and other intangible assets.

New accounting standards

The following new accounting pronouncements were adopted in fiscal year 2019:

In August 2017, the Financial Accounting Standards Board (the "FASB") issued ASU No. 2017-12, *Derivatives and Hedging (Topic 815) – Targeted Improvements to Accounting for Hedging Activities*, which improves the financial reporting of hedging relationships to better portray the economic results of an entity's risk management activities in its financial statements. The amendments in this update also make certain targeted improvements to simplify the application of the hedge accounting guidance in current GAAP. Snap-on adopted ASU No. 2017-12 at the beginning of its 2019 fiscal year. The adoption of this ASU resulted in new disclosures, including comparative information for all years presented, but otherwise had no impact on the company's Consolidated Financial Statements. See Note 10 for further information on financial instruments.

In February 2018, the FASB issued ASU No. 2018-02, *Income Statement - Reporting Comprehensive Income - Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income (Topic 220)*, which allows for a reclassification from accumulated other comprehensive income to retained earnings for stranded tax effects resulting from the Tax Cuts and Jobs Act (the "Tax Act"). Snap-on adopted this ASU at the beginning of its 2019 fiscal year, resulting in an increase of $45.9 million to Retained Earnings on the company's Consolidated Statements of Equity with an offsetting decrease in Accumulated Other Comprehensive Income (Loss). See Note 18 for further information on accumulated other comprehensive income.

In February 2016, the FASB issued ASU No. 2016-02, *Leases (Topic 842)*, to increase transparency and comparability among organizations by recognizing lease assets and lease liabilities on the balance sheet and disclosing key information about leasing arrangements. The ASU is intended to represent an improvement over previous GAAP, which did not require lease assets and lease liabilities to be recognized for most leases. Topic 842, which supersedes most current lease guidance, affects any entity that enters into a lease, with some specified scope exemptions.

Snap-on adopted Topic 842 using the modified retrospective approach, with a date of initial application of December 30, 2018, the beginning of its 2019 fiscal year. Snap-on elected the package of practical expedients permitted under the standard, which allowed the company to carry forward historical lease classifications. The company also elected the practical expedient related to treating lease and non-lease components as a single lease component for all equipment leases as well as electing a policy exclusion permitting leases with an original lease term of less than one year to be excluded from the Right-of-Use ("ROU") assets and lease liabilities. The adoption of this ASU did not have a significant impact on the company's Consolidated Financial Statements. See Note 16 for further information on leases.

In August 2018, the FASB issued ASU No. 2018-14, *Compensation - Retirement Benefits - Defined Benefit Plans - General Subtopic 715-20 - Disclosure Framework - Changes to the Disclosure Requirements for Defined Benefit Plans*, which is designed to improve the effectiveness of disclosures by removing and adding disclosures related to defined benefit plans. ASU No. 2018-14 is effective for fiscal years ending after December 15, 2020. In the fourth quarter of 2019, the company early adopted ASU 2018-14. The adoption resulted in new disclosures, including comparative information for all years presented, and the removal of certain disclosures no longer required. See Notes 11 and 12 for further information on retirement plans.

The following new accounting pronouncements, and related impacts on adoption, are being evaluated by the company:

In December 2019, the FASB issued ASU No. 2019-12, *Simplifying the Accounting for Income Taxes*, which is designed to simplify the accounting for income taxes by removing certain exceptions to the general principles in Topic 740. ASU 2019-12 is effective for fiscal years beginning after December 15, 2020, including interim periods within those fiscal years; this ASU allows for early adoption in any interim period after issuance of the update. The company is currently assessing the impact this ASU will have on its consolidated financial statements.

In August 2018, the FASB issued ASU No. 2018-13, *Fair Value Measurement (Topic 820) - Disclosure Framework - Changes to the Disclosure Requirements for Fair Value Measurement*, which is designed to improve the effectiveness of disclosures by removing, modifying and adding disclosures related to fair value measurements. ASU No. 2018-13 is effective for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years. The adoption of this ASU is not expected to have a significant impact on the company's consolidated financial statements.

In June 2016, the FASB issued ASU No. 2016-13, *Financial Instruments – Credit Losses (Topic 326)*, to require the measurement of expected credit losses for financial instruments held at the reporting date based on historical experience, current conditions and reasonable forecasts. The main objective of this ASU is to provide financial statement users with more information about the expected credit losses on financial instruments and other commitments to extend credit held by a reporting entity at each reporting date. ASU No. 2016-13 is effective for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years.

The adoption of ASU No. 2016-13 will require the company to record an estimate of all expected credit losses based on historical experience, current conditions, and a reasonable and supportable forecast. This guidance will replace the company's current incurred loss model, which uses historical loss experience to estimate credit loss reserves. This ASU is expected to increase the company's allowance for doubtful accounts as a result of: (i) recording reserves based on historical loss experience; (ii) extending the loss estimate period over the remaining contractual life of the receivable; and (iii) forecasting for future market conditions. Snap-on commenced its assessment of this ASU during the second half of 2018 and developed a comprehensive project plan that included representatives from the company's business segments. The project plan included analyzing the standard's potential change on the company's allowance for doubtful accounts reserves, identifying reporting requirements of the new standard, and identifying changes to the company's business processes, systems and controls to support the accounting and disclosures under this ASU.

As of December 28, 2019, and subject to the company's ongoing evaluation of the receivables portfolio, the company has completed its evaluation of the expected impact of adoption of ASU No. 2016-13 and anticipates that the adoption of this standard will result in an increase of the allowance for doubtful accounts for finance, contract and trade receivables of approximately $8 million with an offsetting adjustment, net of taxes, to fiscal 2020 beginning retained earnings. Updates to the allowance for doubtful accounts after initial adoption will be recorded through provision expense. The credit risk of the portfolio and the associated underwriting will not change with the adoption of this ASU.

The Company will adopt ASU No. 2016-13 at the beginning of fiscal 2020 using the modified retrospective approach.

Note 2: Revenue Recognition

Snap-on recognizes revenue from the sale of tools, diagnostic and equipment products and related services based on when control of the product passes to the customer or the service is provided and is recognized at an amount that reflects the consideration expected to be received in exchange for such goods or services.

Revenue disaggregation

The following table shows the consolidated revenues by revenue source:

(Amounts in millions)	2019	2018
Revenue from contracts with customers	$ 3,708.3	$ 3,719.6
Other revenues	21.7	21.1
Total net sales	3,730.0	3,740.7
Financial services revenue	337.7	329.7
Total revenues	$ 4,067.7	$ 4,070.4

Snap-on evaluates the performance of its operating segments based on segment revenues, including both external and intersegment net sales, and segment operating earnings. Snap-on accounts for both intersegment sales and transfers based primarily on standard costs with reasonable mark-ups established between the segments. Intersegment amounts are eliminated to arrive at Snap-on's consolidated financial results.

The following table represents external net sales disaggregated by geography, based on the customers' billing addresses:

	2019					
(Amounts in millions)	Commercial & Industrial Group	Snap-on Tools Group	Repair Systems & Information Group	Financial Services	Eliminations	Snap-on Incorporated
Net sales:						
North America*	$ 482.1	$ 1,406.1	$ 766.4	$ —	$ —	$ 2,654.6
Europe	291.7	131.9	241.3	—	—	664.9
All other	264.4	74.9	71.2	—	—	410.5
External net sales	1,038.2	1,612.9	1,078.9	—	—	3,730.0
Intersegment net sales	307.5	—	255.6	—	(563.1)	—
Total net sales	1,345.7	1,612.9	1,334.5	—	(563.1)	3,730.0
Financial services revenue	—	—	—	337.7	—	337.7
Total revenue	$ 1,345.7	$ 1,612.9	$ 1,334.5	$ 337.7	$ (563.1)	$ 4,067.7

	2018					
(Amounts in millions)	Commercial & Industrial Group	Snap-on Tools Group	Repair Systems & Information Group	Financial Services	Eliminations	Snap-on Incorporated
Net sales:						
North America*	$ 466.5	$ 1,378.7	$ 747.1	$ —	$ —	$ 2,592.3
Europe	311.9	151.3	255.2	—	—	718.4
All other	273.2	83.8	73.0	—	—	430.0
External net sales	1,051.6	1,613.8	1,075.3	—	—	3,740.7
Intersegment net sales	291.7	—	259.1	—	(550.8)	—
Total net sales	1,343.3	1,613.8	1,334.4	—	(550.8)	3,740.7
Financial services revenue	—	—	—	329.7	—	329.7
Total revenue	$ 1,343.3	$ 1,613.8	$ 1,334.4	$ 329.7	$ (550.8)	$ 4,070.4

* North America is comprised of the United States, Canada and Mexico.

The following table represents external net sales disaggregated by customer type:

	2019					
(Amounts in millions)	Commercial & Industrial Group	Snap-on Tools Group	Repair Systems & Information Group	Financial Services	Eliminations	Snap-on Incorporated
Net sales:						
Vehicle service professionals	$ 85.5	$ 1,612.9	$ 1,078.9	$ —	$ —	$ 2,777.3
All other professionals	952.7	—	—	—	—	952.7
External net sales	1,038.2	1,612.9	1,078.9	—	—	3,730.0
Intersegment net sales	307.5	—	255.6	—	(563.1)	—
Total net sales	1,345.7	1,612.9	1,334.5	—	(563.1)	3,730.0
Financial services revenue	—	—	—	337.7	—	337.7
Total revenue	$ 1,345.7	$ 1,612.9	$ 1,334.5	$ 337.7	$ (563.1)	$ 4,067.7

	2018					
(Amounts in millions)	Commercial & Industrial Group	Snap-on Tools Group	Repair Systems & Information Group	Financial Services	Eliminations	Snap-on Incorporated
Net sales:						
Vehicle service professionals	$ 91.1	$ 1,613.8	$ 1,075.3	$ —	$ —	$ 2,780.2
All other professionals	960.5	—	—	—	—	960.5
External net sales	1,051.6	1,613.8	1,075.3	—	—	3,740.7
Intersegment net sales	291.7	—	259.1	—	(550.8)	—
Total net sales	1,343.3	1,613.8	1,334.4	—	(550.8)	3,740.7
Financial services revenue	—	—	—	329.7	—	329.7
Total revenue	$ 1,343.3	$ 1,613.8	$ 1,334.4	$ 329.7	$ (550.8)	$ 4,070.4

Nature of goods and services: Snap-on derives net sales from a broad line of products and complementary services that are grouped into three categories: (i) tools; (ii) diagnostics, information and management systems; and (iii) equipment. The tools product category includes hand tools, power tools, tool storage products and other similar products. The diagnostics, information and management systems product category includes handheld and PC-based diagnostic products, service and repair information products, diagnostic software solutions, electronic parts catalogs, business management systems and services, point-of-sale systems, integrated systems for vehicle service shops, original equipment manufacturer ("OEM") purchasing facilitation services, and warranty management systems and analytics to help OEM dealership service and repair shops ("OEM dealerships") manage and track performance. The equipment product category includes solutions for the service of vehicles and industrial equipment. Snap-on supports the sale of its diagnostics and vehicle service shop equipment by offering training programs as well as after-sales support to its customers. Through its financial services businesses, Snap-on also derives revenue from various financing programs designed to facilitate the sales of its products and support its franchise business.

Approximately 90% of Snap-on's net sales are products sold at a point in time through ship-and-bill performance obligations that also includes repair services. The remaining sales revenue is earned over time primarily on a subscription basis including software, extended warranty and other subscription service agreements.

Snap-on enters into contracts related to the selling of tools, diagnostic and repair information and equipment products and related services. At contract inception, an assessment of the goods and services promised in the contracts with customers is performed and a performance obligation is identified for each distinct promise to transfer to the customer a good or service (or bundle of goods or services). To identify the performance obligations, Snap-on considers all of the goods or services promised in the contract regardless of whether they are explicitly stated or are implied by customary business practices. Contracts with customers are comprised of customer purchase orders, invoices and written contracts.

When performance obligations are satisfied: For performance obligations related to the majority of ship-and-bill products, including repair services contracts, control transfers at a point in time when title transfers upon shipment of the product to the customer, and for some sales, control transfers when title is transferred at time of receipt by customer. Once a product or repaired product has shipped or has been delivered, the customer is able to direct the use of, and obtain substantially all of the remaining benefits from the asset, revenue is recognized. Snap-on considers control to have transferred upon shipment or delivery when Snap-on has a present right to payment, the customer has legal title to the asset, Snap-on has transferred physical possession of the asset, and the customer has significant risk and rewards of ownership of the asset.

For performance obligations related to software subscriptions, extended warranties and other subscription agreements, Snap-on transfers control and recognizes revenue over time on a ratable basis using a time-based output method. The performance obligations are typically satisfied as services are rendered on a straight-line basis over the contract term, which is generally for 12 months but can be for a term up to 60 months.

Significant payment terms: For ship-and-bill type contracts with customers, the contract states the final terms of the sale, including the description, quantity, and price of each product or service purchased. Payment terms are typically due upon delivery or up to 30 days after delivery but can range up to 120 days after delivery.

For subscription contracts, payment terms are in advance or in arrears of services on a monthly, quarterly or annual basis over the contract term, which is generally for 12 months but can be for a term up to 60 months depending on the product or service. The customer typically agrees to a stated rate and price in the contract that does not vary over the contract term. In some cases, customers prepay for their licenses, or in other cases, pay on a monthly or quarterly basis. When the timing of the payment made by the customer precedes the delivery of the performance obligation, a contract liability is recognized.

Variable consideration: In some cases, the nature of Snap-on's contracts give rise to variable consideration, including rebates, credits, allowances for returns or other similar items that generally decrease the transaction price. These variable amounts generally are credited to the customer, based on achieving certain levels of sales activity, product returns and making payments within specific terms.

In the normal course of business, Snap-on allows franchisees to return product per the provisions in the franchise agreement that allow for the return of product in a saleable condition. For other customers, product returns are generally not accepted unless the item is defective as manufactured. Where applicable, Snap-on establishes provisions for estimated sales returns. Estimated product returns are recorded as a reduction in reported revenues at the time of sale based upon historical product return experience and is adjusted for known trends to arrive at the amount of consideration to which Snap-on expects to receive. Variable consideration is estimated at the most likely amount that is expected to be earned. Estimated amounts are included in the transaction price 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. Estimates of variable consideration and determination of whether to include estimated amounts in the transaction price are based largely on an assessment of the anticipated performance and all information (historical, current and forecasted) that is reasonably available.

Warranties: Snap-on allows customers to return product when the product is defective as manufactured. Where applicable, Snap-on establishes provisions for estimated warranties. Estimated product warranties are provided for specific product lines and Snap-on accrues for estimated future warranty cost in the period in which the sale is recorded. The costs are included in "Cost of goods sold" on the accompanying Consolidated Statements of Earnings. Snap-on calculates its accrual requirements based on historic warranty loss experience that is periodically adjusted for recent actual experience, including the timing of claims during the warranty period and actual costs incurred. Snap-on does not typically provide customers with the right to a refund.

Practical expedients and exemptions of ASU No. 2014-09, *Revenue from Contracts with Customers (Topic 606)*: Snap-on typically expenses incremental direct costs of obtaining a contract (sales commissions) when incurred because the amortization period is generally 12 months or less. Capitalized long-term contract costs are not significant. Contract costs are expensed or amortized in "Operating expenses" on the accompanying Consolidated Statements of Earnings.

Snap-on elected to account for shipping and handling activities that occur after control of the related good transfers to the customer as fulfillment activities and are therefore recognized upon shipment of the goods.

Snap-on has applied the portfolio approach to its ship-and-bill contracts that have similar characteristics as it reasonably expects that the effects on the financial statements of applying this guidance to the portfolio of contracts would not differ materially from applying this guidance to the individual contracts within the portfolio.

Snap-on typically excludes from its sales transaction price any amounts collected from customers for sales (and similar) taxes.

For certain performance obligations related to software subscriptions, extended warranty and other subscription agreements that are settled over time, Snap-on has elected not to disclose the value of unsatisfied performance obligations for: (i) contracts that have an original expected length of one year or less; (ii) contracts where revenue is recognized as invoiced; and (iii) contracts with variable consideration related to unsatisfied performance obligations. The remaining duration of these unsatisfied performance obligations generally range from one month up to 60 months. Snap-on had approximately $235 million of long-term contracts that have fixed consideration that extends beyond one year as of December 28, 2019. Snap-on expects to recognize approximately 70% of these contracts as revenue by the end of fiscal 2021, an additional 25% by the end of fiscal 2023 and the balance thereafter.

Contract liabilities (Deferred revenues): Contract liabilities are recorded when cash payments are received in advance of Snap-on's performance. The timing of payment is typically on a monthly, quarterly or annual basis. The balance of total contract liabilities was $65.1 million and $63.8 million at December 28, 2019 and December 29, 2018, respectively. The current portion of contract liabilities and the non-current portion are included in "Other accrued liabilities" and "Other long-term liabilities", respectively, on the accompanying Consolidated Balance Sheets. In 2019, Snap-on recognized revenue of $46.2 million that was included in the contract liability balance as of December 29, 2018, which was primarily from the amortization of software subscriptions, extended warranties and other subscription agreements. The increase in the total contract liabilities balance is primarily driven by the timing of cash payments received or due in advance of satisfying Snap-on's performance obligations and growth in certain software subscriptions, partially offset by revenues recognized that were included in the contract liability balance at the beginning of the year.

Franchise fee revenue, including nominal, non-refundable initial fees, is recognized upon the granting of a franchise, which is when the company has performed substantially all initial services required by the franchise agreement. Franchise fee revenue also includes ongoing monthly fees (primarily for sales and business training as well as marketing and product promotion programs) that are recognized as the fees are earned. Franchise fee revenue in 2019, 2018 and 2017 totaled $15.4 million, $16.2 million and $15.2 million, respectively.

Revenue recognition prior to 2018: Revenue recognition prior to 2018, as presented, is based on *Revenue Recognition (Topic 605).* Snap-on recognized revenue from the sale of tools and diagnostic and equipment products when contract terms were met, the price was fixed or determinable, collectability was reasonably assured and a product was shipped or risk of ownership had been transferred to and accepted by the customer. For sales contingent upon customer acceptance, revenue recognition was deferred until such obligations were fulfilled. Estimated product returns were recorded as a reduction in reported revenues at the time of sale based upon historical product return experience and gross profit margin was adjusted for known trends. Provisions for customer volume rebates, discounts and allowances were also recorded as a reduction in reported revenues at the time of sale based on historical experience and known trends. Revenue related to extended warranty and subscription agreements was recognized over the terms of the respective agreements.

Snap-on also recognized revenue related to multiple element arrangements, including sales of hardware, software and software-related services. When a sales arrangement contained multiple elements, such as hardware and software products and/or services, Snap-on used the relative selling price method to allocate revenues between hardware and software elements. For software elements that were not essential to the hardware's functionality and related software post-contract customer support, vendor specific objective evidence ("VSOE") of fair value was used to further allocate revenue to each element based on its relative fair value and, when necessary, the residual method was used to assign value to the delivered elements when VSOE only existed for the undelivered elements. The amount assigned to the products or services was recognized when the product was delivered and/or when the services were performed. In instances where the product and/or services were performed over an extended period, as is the case with subscription agreements or the providing of ongoing support, revenue was generally recognized on a straight-line basis over the term of the agreement, which generally ranged from 12 months to 60 months.

Note 3: Acquisitions

On August 7, 2019, Snap-on acquired Cognitran Limited ("Cognitran") for a preliminary cash purchase price of $30.4 million (or $29.4 million, net of cash acquired). The preliminary purchase price is subject to change based upon finalization of a working capital adjustment that is expected to be completed in the first quarter of 2020. Cognitran, based in Chelmsford, U.K., specializes in flexible, modular and highly scalable "Software as a Service" (SaaS) products for OEM customers and their dealers, focused on the creation and delivery of service, diagnostics, parts and repair information to the OEM dealers and connected vehicle platforms.

As of December 28, 2019, the company recorded, on a preliminary basis, the $11.4 million excess of the purchase price over the fair value of the net assets acquired in "Goodwill" on the accompanying Consolidated Balance Sheets. The company anticipates completing the purchase accounting for the acquired net assets of Cognitran in the first half of 2020.

On April 2, 2019, Snap-on acquired Power Hawk Technologies, Inc. ("Power Hawk") for a cash purchase price of $7.9 million. Power Hawk, based in Rockaway, New Jersey, designs, manufactures and distributes rescue tools and related equipment for a variety of military, governmental, fire and rescue, and emergency operations.

In fiscal 2019, the company completed the purchase accounting valuations for the acquired net assets of Power Hawk. The $6.4 million excess of the purchase price over the fair value of the net assets acquired was recorded in "Goodwill" on the accompanying Consolidated Balance Sheets.

On January 25, 2019, Snap-on acquired substantially all of the assets of TMB GeoMarketing Limited ("TMB") for a cash purchase price of $1.3 million. TMB, based in Dorking, U.K., designs planning software used by OEMs to optimize dealer locations and manage the performance of dealer outlets.

In fiscal 2019, the company completed the purchase accounting valuations for the acquired net assets of TMB. Substantially all of the purchase price over the fair value of the net assets acquired was recorded in "Goodwill" on the accompanying Consolidated Balance Sheets.

On January 31, 2018, Snap-on acquired substantially all of the assets of George A. Sturdevant, Inc. (d/b/a Fastorq) for a cash purchase price of $3.0 million. Fastorq, based in New Caney, Texas, designs, assembles and distributes hydraulic torque and hydraulic tensioning products for use in critical industries.

In fiscal 2018, the company completed the purchase accounting valuations for the acquired net assets of Fastorq. The $2.6 million excess of the purchase price over the fair value of the net assets acquired was recorded in "Goodwill" on the accompanying Consolidated Balance Sheets.

On July 28, 2017, Snap-on acquired Torque Control Specialists Pty Ltd ("TCS") for a cash purchase price of $3.6 million (or $3.5 million, net of cash acquired). TCS, based in Adelaide, Australia, distributes a full range of torque products, including wrenches, multipliers and calibrators, for use in critical industries.

In fiscal 2018, the company completed the purchase accounting valuations for the acquired net assets of TCS. The $2.0 million excess of purchase price over the fair value of the net assets acquired was recorded in "Goodwill" on the accompanying Consolidated Balance Sheets.

On May 4, 2017, Snap-on acquired Norbar Torque Tools Holdings Limited, along with its U.S. and Chinese joint ventures ("Norbar"), for a cash purchase price of $71.6 million (or $69.9 million, net of cash acquired). Norbar, based in Banbury, U.K., designs and manufactures a full range of torque products, including wrenches, multipliers and calibrators for use in critical industries.

In fiscal 2018, the company completed the purchase accounting valuations for the acquired net assets of Norbar, including intangible assets. The $25.1 million excess of purchase price over the fair value of the net assets acquired was recorded in "Goodwill" on the accompanying Consolidated Balance Sheets.

On January 30, 2017, Snap-on acquired BTC Global Limited ("BTC") for a cash purchase price of $9.2 million. BTC, based in Crewe, U.K., designs and implements automotive vehicle inspection and management software for OEM franchise repair shops.

In fiscal 2017, the company completed the purchase accounting valuations for the acquired net assets of BTC, including intangible assets. The $5.9 million excess of purchase price over the fair value of the net assets acquired was recorded in "Goodwill" on the accompanying Consolidated Balance Sheets.

For segment reporting purposes, the results of operations and assets of Cognitran, TMB, and BTC have been included in the Repair Systems & Information Group since the respective acquisition dates, and the results of operations and assets of Power Hawk, Fastorq, TCS and Norbar have been included in the Commercial & Industrial Group since the respective acquisition dates.

Pro forma financial information has not been presented for any of these acquisitions as the net effects, individually and collectively, were neither significant nor material to Snap-on's results of operations or financial position. See Note 7 for further information on goodwill and other intangible assets.

Note 4: Receivables

Trade and Other Accounts Receivable

Snap-on's trade and other accounts receivable primarily arise from the sale of tools and diagnostic and equipment products to a broad range of industrial and commercial customers and to Snap-on's independent franchise van channel on a non-extended-term basis with payment terms generally ranging from 30 to 120 days.

The components of Snap-on's trade and other accounts receivable as of 2019 and 2018 year end are as follows:

(Amounts in millions)	2019	2018
Trade and other accounts receivable	$ 715.5	$ 710.1
Allowances for doubtful accounts	(20.9)	(17.5)
Total trade and other accounts receivable – net	$ 694.6	$ 692.6

Finance and Contract Receivables

Snap-on Credit LLC, the company's financial services operation in the United States, originates extended-term finance and contract receivables on sales of Snap-on's products sold through the U.S. franchisee and customer network and to certain other customers of Snap-on; Snap-on's foreign finance subsidiaries provide similar financing internationally. Interest income on finance and contract receivables is included in "Financial services revenue" on the accompanying Consolidated Statements of Earnings.

Snap-on's finance receivables are comprised of extended-term payment contracts to both technicians and independent shop owners (i.e., franchisees' customers) to enable them to purchase tools and diagnostic and equipment products on an extended-term payment plan, generally with average payment terms of approximately four years. Finance receivables are generally secured by the underlying tools and/or diagnostic or equipment products financed.

Snap-on's contract receivables, with payment terms of up to 10 years, are comprised of extended-term payment contracts to a broad base of customers worldwide. Contract receivables include extended-term loans to franchisees to meet a number of financing needs, including working capital loans, loans to enable new franchisees to fund the purchase of the franchise or for the expansion of an existing franchise, as well as van leases. Contract receivables also include extended-term loans to shop owners, both independents and national chains, for their purchase of tools and diagnostic and equipment products. Contract receivables are generally secured by the underlying tools and/or diagnostic or equipment products financed and, for loans to franchisees, other franchisee assets.

Prior period information in the tables below has been updated to conform to current year presentation for finance and contract lease receivables. See Notes 1 and 16 for further information on lessor accounting.

The components of Snap-on's current finance and contract receivables as of 2019 and 2018 year end are as follows:

(Amounts in millions)	2019	2018
Finance installment receivables	$ 511.9	$ 499.0
Finance lease receivables, net of unearned finance charges of $11.7 million and $11.4 million, respectively	37.9	39.1
Total finance receivables	549.8	538.1
Contract installment receivables	50.8	48.9
Contract lease receivables, net of unearned finance charges of $18.2 million and $18.4 million, respectively	51.4	50.6
Total contract receivables	102.2	99.5
Total	652.0	637.6
Allowances for doubtful accounts:		
Finance installment receivables	(19.2)	(19.0)
Finance lease receivables	(0.5)	(0.6)
Total finance allowance for doubtful accounts	(19.7)	(19.6)
Contract installment receivables	(0.5)	(0.4)
Contract lease receivables	(1.0)	(0.8)
Total contract allowance for doubtful accounts	(1.5)	(1.2)
Total allowance for doubtful accounts	(21.2)	(20.8)
Total current finance and contract receivables – net	$ 630.8	$ 616.8
Finance receivables – net	$ 530.1	$ 518.5
Contract receivables – net	100.7	98.3
Total current finance and contract receivables – net	$ 630.8	$ 616.8

The components of Snap-on's finance and contract receivables with payment terms beyond one year as of 2019 and 2018 year end are as follows:

(Amounts in millions)	2019	2018
Finance installment receivables	$ 1,106.0	$ 1,080.1
Finance lease receivables, net of unearned finance charges of $8.2 million and $6.7 million, respectively	39.7	36.1
Total finance receivables	1,145.7	1,116.2
Contract installment receivables	195.5	190.6
Contract lease receivables, net of unearned finance charges of $29.4 million and $27.8 million, respectively	168.7	157.4
Total contract receivables	364.2	348.0
Total	1,509.9	1,464.2
Allowances for doubtful accounts:		
Finance installment receivables	(41.6)	(41.3)
Finance lease receivables	(0.6)	(0.5)
Total finance allowance for doubtful accounts	(42.2)	(41.8)
Contract installment receivables	(1.8)	(1.5)
Contract lease receivables	(2.3)	(1.6)
Total contract allowance for doubtful accounts	(4.1)	(3.1)
Total allowance for doubtful accounts	(46.3)	(44.9)
Total current finance and contract receivables – net	$ 1,463.6	$ 1,419.3
Finance receivables – net	$ 1,103.5	$ 1,074.4
Contract receivables – net	360.1	344.9
Total current finance and contract receivables – net	$ 1,463.6	$ 1,419.3

Long-term finance and contract receivables installments, net of unearned finance charges, as of 2019 and 2018 year end are scheduled as follows:

	2019		2018	
(Amounts in millions)	Finance Receivables	Contract Receivables	Finance Receivables	Contract Receivables
Due in Months:				
13 – 24	$ 439.1	$ 86.4	$ 428.7	$ 82.2
25 – 36	352.4	76.9	345.0	72.5
37 – 48	238.0	65.6	232.8	60.5
49 – 60	116.2	51.3	109.7	48.8
Thereafter	—	84.0	—	84.0
Total	$ 1,145.7	$ 364.2	$ 1,116.2	$ 348.0

Delinquency is the primary indicator of credit quality for finance and contract receivables. The entire receivable balance of a contract is considered delinquent when contractual payments become 30 days past due. Depending on the contract, payments for finance and contract receivables are due on a monthly or weekly basis. Weekly payments are converted into a monthly equivalent for purposes of calculating delinquency. Delinquencies are assessed at the end of each month following the monthly equivalent due date. Removal from delinquent status occurs when the cumulative number and amount of monthly equivalent payments due has been received by the company.

Finance receivables are generally placed on nonaccrual status (nonaccrual of interest and other fees): (i) when a customer is placed on repossession status; (ii) upon receipt of notification of bankruptcy; (iii) upon notification of the death of a customer; or (iv) in other instances in which management concludes collectability is not reasonably assured. Finance receivables that are considered nonperforming include receivables that are on nonaccrual status and receivables that are generally more than 90 days past due.

Contract receivables are generally placed on nonaccrual status: (i) when a receivable is more than 90 days past due or at the point a customer's account is placed on terminated status regardless of its delinquency status; (ii) upon notification of the death of a customer; or (iii) in other instances in which management concludes collectability is not reasonably assured. Contract receivables that are considered nonperforming include receivables that are on nonaccrual status and receivables that are generally more than 90 days past due.

The accrual of interest and other fees is resumed when the finance or contract receivable becomes contractually current and collection of all remaining contractual amounts due is reasonably assured. Finance and contract receivables are evaluated for impairment on a collective basis. A receivable is impaired when it is probable that all amounts related to the receivable will not be collected according to the contractual terms of the applicable agreement. Impaired finance and contract receivables are covered by the company's respective allowances for doubtful accounts and are charged-off against the allowances when appropriate. As of 2019 and 2018 year end, there were $29.4 million and $27.9 million, respectively, of impaired finance receivables, and there were $2.7 million and $6.0 million, respectively, of impaired contract receivables.

It is the general practice of Snap-on's financial services business to not engage in contract or loan modifications. In limited instances, Snap-on's financial services business may modify certain impaired receivables in troubled debt restructurings. The amount and number of restructured finance and contract receivables as of 2019 and 2018 year end were immaterial to both the financial services portfolio and the company's results of operations and financial position.

The aging of finance and contract receivables as of 2019 and 2018 year end is as follows:

(Amounts in millions)	30-59 Days Past Due	60-90 Days Past Due	Greater Than 90 Days Past Due	Total Past Due	Total Not Past Due	Total	Greater Than 90 Days Past Due and Accruing
2019 year end:							
Finance receivables	$ 19.7	$ 12.0	$ 21.4	$ 53.1	$ 1,642.4	$ 1,695.5	$ 17.2
Contract receivables	1.5	0.9	1.5	3.9	462.5	466.4	0.5
2018 year end:							
Finance receivables	$ 19.4	$ 12.1	$ 20.3	$ 51.8	$ 1,602.5	$ 1,654.3	$ 15.9
Contract receivables	1.7	1.2	5.2	8.1	439.4	447.5	0.2

The amount of performing and nonperforming finance and contract receivables based on payment activity as of 2019 and 2018 year end is as follows:

	2019		2018	
(Amounts in millions)	Finance Receivables	Contract Receivables	Finance Receivables	Contract Receivables
Performing	$ 1,666.1	$ 463.7	$ 1,626.4	$ 441.5
Nonperforming	29.4	2.7	27.9	6.0
Total	$ 1,695.5	$ 466.4	$ 1,654.3	$ 447.5

The amount of finance and contract receivables on nonaccrual status as of 2019 and 2018 year end is as follows:

(Amounts in millions)	2019	2018
Finance receivables	$ 12.2	$ 12.0
Contract receivables	2.2	5.8

The following is a rollforward of the allowances for doubtful accounts for finance and contract receivables for 2019 and 2018:

	2019		2018	
(Amounts in millions)	Finance Receivables	Contract Receivables	Finance Receivables	Contract Receivables
Allowances for doubtful accounts:				
Beginning of year	$ 61.4	$ 4.3	$ 56.5	$ 4.6
Provision	49.9	4.7	57.5	2.0
Charge-offs	(57.1)	(3.9)	(59.4)	(2.5)
Recoveries	7.7	0.5	7.1	0.4
Currency translation	—	—	(0.3)	(0.2)
End of year	$ 61.9	$ 5.6	$ 61.4	$ 4.3

The following is a rollforward of the combined allowances for doubtful accounts related to trade and other accounts receivable, as well as finance and contract receivables, for 2019, 2018 and 2017:

(Amounts in millions)	Balance at Beginning of Year	Expenses	Deductions [(1)]	Balance at End of Year
Allowances for doubtful accounts:				
2019	$ 83.2	$ 68.2	$ (63.0)	$ 88.4
2018	75.7	70.3	(62.8)	83.2
2017	66.5	65.1	(55.9)	75.7

(1) Represents write-offs of bad debts, net of recoveries, and the net impact of currency translation.

Note 5: Inventories

Inventories by major classification as of 2019 and 2018 year end are as follows:

(Amounts in millions)	2019	2018
Finished goods	$ 661.0	$ 577.0
Work in progress	57.1	51.7
Raw materials	126.8	123.5
Total FIFO value	844.9	752.2
Excess of current cost over LIFO cost	(84.5)	(78.4)
Total inventories – net	$ 760.4	$ 673.8

Inventories accounted for using the FIFO method approximated 58% and 61% of total inventories as of 2019 and 2018 year end, respectively. The company accounts for its non-U.S. inventory on the FIFO method. As of 2019 year end, approximately 32% of the company's U.S. inventory was accounted for using the FIFO method and 68% was accounted for using the LIFO method. There were no LIFO inventory liquidations in 2019, 2018 or 2017.

Note 6: Property and Equipment

Property and equipment (which are carried at cost) as of 2019 and 2018 year end are as follows:

(Amounts in millions)	2019	2018
Land	$ 31.9	$ 31.7
Buildings and improvements	405.1	368.6
Machinery, equipment and computer software	988.0	944.4
Property and equipment – gross	1,425.0	1,344.7
Accumulated depreciation and amortization	(903.5)	(849.6)
Property and equipment – net	$ 521.5	$ 495.1

The estimated service lives of property and equipment are principally as follows:

Buildings and improvements	3 to 50 years
Machinery, equipment and computer software	2 to 15 years

Depreciation expense was $70.1 million, $68.8 million and $65.6 million in 2019, 2018 and 2017, respectively.

Note 7: Goodwill and Other Intangible Assets

The changes in the carrying amount of goodwill by segment for 2019 and 2018 are as follows:

(Amounts in millions)	Commercial & Industrial Group	Snap-on Tools Group	Repair Systems & Information Group	Total
Balance as of 2017 year end	$ 298.4	$ 12.5	$ 613.2	$ 924.1
Currency translation	(16.3)	—	(9.7)	(26.0)
Acquisitions	4.1	—	—	4.1
Balance as of 2018 year end	$ 286.2	$ 12.5	$ 603.5	$ 902.2
Currency translation	(6.4)	—	(1.1)	(7.5)
Acquisitions	6.4	—	12.7	19.1
Balance as of 2019 year end	$ 286.2	$ 12.5	$ 615.1	$ 913.8

Goodwill of $913.8 million as of 2019 year end includes: (i) $11.4 million, on a preliminary basis, from the acquisition of Cognitran; (ii) $6.4 million from the acquisition of Power Hawk; and (iii) $1.3 million from the acquisition of TMB. The goodwill from the Cognitran and TMB acquisitions is included in the Repair Systems & Information Group. The goodwill from the Power Hawk acquisition is included in the Commercial & Industrial Group.

Goodwill of $902.2 million as of 2018 year end includes $2.6 million from the acquisition of Fastorq in 2018. During 2018, the purchase accounting valuations for the acquired net assets, including intangible assets, of Norbar and TCS were completed, resulting in an increase in goodwill of $1.4 million for Norbar and $0.1 million for TCS, which were both acquired in 2017. As of 2018 year end goodwill includes $25.1 million from the acquisition of Norbar and $2.0 million from the acquisition of TCS. The goodwill from the Fastorq, Norbar and TCS acquisitions is included in the Commercial & Industrial Group.

See Note 3 for additional information on acquisitions.

Additional disclosures related to other intangible assets as of 2019 and 2018 year end are as follows:

	2019		2018	
(Amounts in millions)	Gross Carrying Value	Accumulated Amortization	Gross Carrying Value	Accumulated Amortization
Amortized other intangible assets:				
Customer relationships	$ 182.9	$ (117.9)	$ 172.2	$ (107.6)
Developed technology	19.8	(18.9)	18.5	(18.3)
Internally developed software	168.0	(125.4)	156.6	(116.6)
Patents	38.5	(23.7)	35.7	(22.9)
Trademarks	3.5	(2.1)	3.2	(2.0)
Other	7.3	(3.1)	7.3	(2.9)
Total	420.0	(291.1)	393.5	(270.3)
Non-amortized trademarks	115.0	—	109.7	—
Total other intangible assets	$ 535.0	$ (291.1)	$ 503.2	$ (270.3)

As of year-end 2019, the gross carrying value of customer relationships includes $10.2 million related to the Cognitran acquisition and $0.9 million related to the Power Hawk acquisition. Additionally, the gross carrying value of intangible assets in 2019 includes $6.5 million of non-amortized trademarks and $1.1 million of developed techology as a result of the Cognitran acquisition. There were no acquisitions during 2018 that resulted in the recognition of other intangible assets as of year-end 2018.

Significant and unanticipated changes in circumstances, such as declines in profitability and cash flow due to significant and long-term deterioration in macroeconomic, industry and market conditions, the loss of key customers, changes in technology or markets, significant changes in key personnel or litigation, a significant and sustained decrease in share price and/or other events, including effects from the sale or disposal of a reporting unit, could require a provision for impairment of goodwill and/or other intangible assets in a future period. As of 2019 year end, the company had no accumulated impairment losses.

The weighted-average amortization periods related to other intangible assets are as follows:

	In Years
Customer relationships	15
Developed technology	2
Internally developed software	6
Patents	7
Trademarks	5
Other	39

Snap-on is amortizing its customer relationships on both an accelerated and straight-line basis over a 15 year weighted-average life; the remaining intangibles are amortized on a straight-line basis. The weighted-average amortization period for all amortizable intangibles on a combined basis is 12 years.

The company's customer relationships generally have contractual terms of three to five years and are typically renewed without significant cost to the company. The weighted-average 15 year life for customer relationships is based on the company's historical renewal experience. Intangible asset renewal costs are expensed as incurred.

The aggregate amortization expense was $22.3 million in 2019, $25.3 million in 2018 and $27.6 million in 2017. Based on current levels of amortizable intangible assets and estimated weighted-average useful lives, estimated annual amortization expense is expected to be $21.4 million in 2020, $18.9 million in 2021, $15.4 million in 2022, $13.2 million in 2023, and $10.6 million in 2024.

Note 8: Income Taxes

The source of earnings before income taxes and equity earnings consisted of the following:

(Amounts in millions)	2019	2018	2017
United States	$ 765.3	$ 735.4	$ 645.5
Foreign	156.8	174.5	176.4
Total	$ 922.1	$ 909.9	$ 821.9

The provision (benefit) for income taxes consisted of the following:

(Amounts in millions)	2019	2018	2017
Current:			
Federal	$ 110.0	$ 117.9	$ 166.9
Foreign	38.1	52.4	41.1
State	29.5	30.4	30.6
Total current	177.6	200.7	238.6
Deferred:			
Federal	26.6	18.7	8.7
Foreign	1.5	(8.4)	2.9
State	6.1	3.4	0.7
Total deferred	34.2	13.7	12.3
Total income tax provision	$ 211.8	$ 214.4	$ 250.9

The following is a reconciliation of the statutory federal income tax rate to Snap-on's effective tax rate:

	2019	2018	2017
Statutory federal income tax rate	21.0%	21.0%	35.0%
Increase (decrease) in tax rate resulting from:			
State income taxes, net of federal benefit	2.9	2.9	2.4
Noncontrolling interests	(0.4)	(0.4)	(0.6)
Repatriation of foreign earnings	(0.1)	(0.1)	(1.2)
Change in valuation allowance for deferred tax assets	0.4	0.3	0.1
Adjustments to tax accruals and reserves	(0.4)	(0.2)	(0.3)
Foreign rate differences	0.4	0.4	(2.4)
Domestic production activities deduction	—	—	(2.1)
Excess tax benefits related to equity compensation	(0.5)	(0.8)	(1.4)
U.S. tax reform, net impact	—	0.4	0.9
Other	(0.3)	0.1	0.1
Effective tax rate	23.0%	23.6%	30.5%

Snap-on's effective income tax rate on earnings attributable to Snap-on Incorporated was 23.4% in 2019, 24.0% in 2018, and 31.1% in 2017. The effective tax rate for 2019 and 2018 reflects the reduction of the U.S. federal corporate income tax rate from 35% to 21%; 2018 also included an additional non-recurring net tax charge attributable to the prior year's U.S. tax reform changes. The effective tax rate for 2017 included a one-time net tax costs associated with the Tax Cuts and Jobs Act (the "Tax Act"), which was signed into law in the fourth quarter of 2017, as well as tax benefits associated with certain legal charges.

On December 22, 2017, the U.S. government passed the Tax Act. The Tax Act made broad and complex changes to the U.S. tax code, including, but not limited to: (i) reducing the U.S. federal corporate tax rate from 35% to 21%; (ii) requiring companies to pay a one-time transition tax on certain unremitted earnings of foreign subsidiaries; and (iii) bonus depreciation that allows for full expensing of qualified property.

The Tax Act also established new tax laws that affect years after 2017, including, but not limited to: (i) the reduction of the U.S. federal corporate tax rate discussed above; (ii) a general elimination of U.S. federal income taxes on dividends from foreign subsidiaries; (iii) a new provision designed to tax global intangible low-taxed income ("GILTI"); (iv) the repeal of the domestic production activity deductions; (v) limitations on the deductibility of certain executive compensation; (vi) limitations on the use of foreign tax credits to reduce the U.S. income tax liability; and (vii) a new provision that allows a domestic corporation an immediate deduction for a portion of its foreign derived intangible income ("FDII").

The Securities and Exchange Commission staff issued Staff Accounting Bulletin ("SAB") 118, which provided guidance on accounting for the tax effects of the Tax Act, for the company's year ended December 30, 2017. SAB 118 provided a measurement period that should not extend beyond one year from the Tax Act enactment date for companies to complete the related accounting under ASC 740, *Accounting for Income Taxes*. In accordance with SAB 118, a company must reflect the income tax effects of those aspects of the Tax Act for which the accounting under Accounting Standards Codification ("ASC") 740 is complete. To the extent that a company's accounting for a certain income tax effect of the Tax Act is incomplete, but it is able to determine a reasonable estimate, it must record a provisional estimate in the financial statements. If a company cannot determine a provisional estimate to be included in the financial statements, it should continue to apply ASC 740 on the basis of the provisions of the tax laws that were in effect immediately before the enactment of the Tax Act.

The company's accounting for certain elements of the Tax Act was incomplete as of December 30, 2017. However, the company was able to make reasonable estimates of the effects and, therefore, recorded provisional estimates for these items. In connection with its initial analysis of the impact of the Tax Act, the company recorded a provisional discrete net tax expense of $7.0 million in the fiscal year ended December 31, 2017. This provisional estimate consisted of a net expense of $13.7 million for the one-time transition tax and a net benefit of $6.7 million related to revaluation of deferred tax assets and liabilities, caused by the new lower corporate tax rate. To determine the transition tax, the company must determine the amount of post-1986 accumulated earnings and profits of the relevant subsidiaries, as well as the amount of non-U.S. income taxes paid on such earnings. While the company was able to make a reasonable estimate of the transition tax for 2017, it continued to gather additional information to more precisely compute the final amount reported on its 2017 U.S. federal tax return which was filed in October 2018. The actual transition tax was $8.3 million greater than the company's initial estimate and was included in income tax expense for 2018. Likewise, while the company was able to make a reasonable estimate of the impact of the reduction to the corporate tax rate, it was affected by other analyses related to the Tax Act, including, but not limited to, the state tax effect of adjustments made to federal temporary differences. During 2018, the company recorded additional net tax benefits of $4.4 million attributable to pension contributions made in 2018 that were deductible for 2017 at the higher 35% federal tax rate and other changes to the 2017 tax provision related to the Tax Act and subsequently-issued tax guidance. Due to the complexity of the new GILTI tax rules, the company continued to evaluate this provision of the Tax Act and the application of ASC 740 throughout 2018. Under GAAP, the company is allowed to make an accounting policy choice to either: (i) treat taxes due on future U.S. inclusions in taxable income related to GILTI as a current-period expense when incurred (the "period cost method"); or (ii) factor in such amounts into a company's measurement of its deferred taxes (the "deferred method"). The company selected to apply the "period cost method" to account for the new GILTI tax, and treated it as a current-period expense for 2019 and 2018.

Temporary differences that give rise to the net deferred income tax asset as of 2019, 2018 and 2017 year end are as follows:

(Amounts in millions)	2019	2018	2017
Deferred income tax assets (liabilities):			
Inventories	$ 34.7	$ 33.6	$ 28.8
Accruals not currently deductible	62.4	72.9	61.7
Tax credit carryforward	2.0	1.8	2.1
Employee benefits	41.3	56.5	56.8
Net operating losses	40.4	40.9	44.0
Depreciation and amortization	(178.9)	(167.5)	(161.3)
Valuation allowance	(27.8)	(25.1)	(25.2)
Equity-based compensation	16.2	16.6	17.1
Undistributed non-U.S. earnings	(6.6)	(6.0)	—
Cash flow hedge	—	—	(0.3)
Other	(0.7)	(0.4)	(0.1)
Net deferred income tax asset (liability)	$ (17.0)	$ 23.3	$ 23.6

As of 2019 year end, Snap-on had tax net operating loss carryforwards totaling $209.6 million as follows:

(Amounts in millions)	State	Federal	Foreign	Total
Year of expiration:				
2020-2024	$ 0.3	$ —	$ 59.0	$ 59.3
2025-2029	—	—	9.4	9.4
2030-2034	74.4	—	—	74.4
2035-2039	—	—	—	—
2040-2044	—	—	34.1	34.1
Indefinite	—	—	32.4	32.4
Total net operating loss carryforwards	$ 74.7	$ —	$ 134.9	$ 209.6

A valuation allowance totaling $27.8 million, $25.1 million and $25.2 million as of 2019, 2018 and 2017 year end, respectively, has been established for deferred income tax assets primarily related to certain subsidiary loss carryforwards that may not be realized. Realization of the net deferred income tax assets is dependent on generating sufficient taxable income prior to their expiration. Although realization is not assured, management believes it is more-likely-than-not that the net deferred income tax assets will be realized. The amount of the net deferred income tax assets considered realizable, however, could change in the near term if estimates of future taxable income during the carryforward period fluctuate.

The following is a reconciliation of the beginning and ending amounts of unrecognized tax benefits for 2019, 2018 and 2017:

(Amounts in millions)	2019	2018	2017
Unrecognized tax benefits at beginning of year	$ 11.1	$ 7.7	$ 9.4
Gross increases – tax positions in prior periods	—	1.3	1.4
Gross decreases – tax positions in prior periods	(0.6)	(0.1)	—
Gross increases – tax positions in the current period	0.5	2.8	1.0
Settlements with taxing authorities	—	—	(3.6)
Lapsing of statutes of limitations	(0.7)	(0.6)	(0.5)
Unrecognized tax benefits at end of year	$ 10.3	$ 11.1	$ 7.7

The unrecognized tax benefits of $10.3 million, $11.1 million and $7.7 million as of 2019, 2018 and 2017 year end, respectively, would impact the effective income tax rate if recognized. As of December 28, 2019, unrecognized tax benefits of $1.2 million and $9.1 million were included in “Deferred income tax assets” and “Other long-term liabilities,” respectively, on the accompanying Consolidated Balance Sheets. Interest and penalties related to unrecognized tax benefits are recorded in income tax expense. As of 2019, 2018 and 2017 year end, the company had provided for $1.1 million, $0.8 million and $0.6 million, respectively, of accrued interest and penalties related to unrecognized tax benefits. During 2019, the company increased the reserve attributable to interest and penalties associated with unrecognized tax benefits by a net $0.3 million. As of December 28, 2019, $1.1 million of accrued interest and penalties were included in “Other long-term liabilities” on the accompanying Consolidated Balance Sheets.

Snap-on and its subsidiaries file income tax returns in the United States and in various state, local and foreign jurisdictions. It is reasonably possible that certain unrecognized tax benefits may either be settled with taxing authorities or the statutes of limitations for such items may lapse within the next 12 months, causing Snap-on’s gross unrecognized tax benefits to decrease by a range of zero to $2.4 million. Over the next 12 months, Snap-on anticipates taking certain tax positions on various tax returns for which the related tax benefit does not meet the recognition threshold. Accordingly, Snap-on’s gross unrecognized tax benefits may increase by a range of zero to $0.9 million over the next 12 months for uncertain tax positions expected to be taken in future tax filings.

With few exceptions, Snap-on is no longer subject to U.S. federal and state/local income tax examinations by tax authorities for years prior to 2014, and Snap-on is no longer subject to non-U.S. income tax examinations by tax authorities for years prior to 2012.

In general, it is Snap-on’s practice and intention to reinvest certain earnings of its non-U.S. subsidiaries in those operations. As of 2019 year end, the company has not made a provision for incremental U.S. income taxes or additional foreign withholding taxes on approximately $271.8 million of such undistributed earnings that is deemed indefinitely reinvested. Determination of the amount of unrecognized deferred tax liability related to these earnings is not practicable. As a result of the Tax Act, which subjected the majority of the company’s undistributed foreign earnings to taxation for the 2017 tax year, the company can now repatriate non-U.S. cash in a tax efficient manner. Accordingly, the company has reversed its prior assertion concerning the indefinite reinvestment of the majority of its undistributed foreign earnings and has recorded a deferred tax liability of $6.6 million for the incremental tax costs associated with the future potential repatriation of such earnings.

Note 9: Short-term and Long-term Debt

Short-term and long-term debt as of 2019 and 2018 year end consisted of the following:

(Amounts in millions)	2019	2018
6.125% unsecured notes due 2021	$ 250.0	$ 250.0
3.25% unsecured notes due 2027	300.0	300.0
4.10% unsecured notes due 2048	400.0	400.0
Other debt*	199.8	182.3
	1,149.8	1,132.3
Less: notes payable:		
Commercial paper borrowings	$ (193.6)	$ (177.1)
Other notes	(9.3)	(9.2)
	(202.9)	(186.3)
Total long-term debt	$ 946.9	$ 946.0

* Includes the net effects of debt amortization costs and fair value adjustments related to interest rate swaps.

The annual maturities of Snap-on's long-term debt and notes payable over the next five years are $202.9 million in 2020, $250 million in 2021, and no maturities in 2022, 2023 and 2024.

Average notes payable outstanding, including commercial paper borrowings, were $175.0 million and $167.7 million in 2019 and 2018, respectively. The 2019 year end weighted-average interest rate on such borrowings of 2.87% compared with 2.84% at 2018 year end. Average commercial paper borrowings were $162.2 million and $154.9 million in 2019 and 2018, respectively, and the weighted-average interest rate of 2.27% on such borrowings in 2019 increased from 2.03% last year. At 2019 year end, the weighted-average interest rate on outstanding notes payable of 2.23% compared with 3.21% at 2018 year end. The 2019 year end rate decreased primarily due to lower rates on commercial paper borrowings.

On February 20, 2018, Snap-on commenced a tender offer to repurchase $200 million in principal amount of its unsecured 6.70% notes that were scheduled to mature on March 1, 2019 (the "2019 Notes"), with $26.1 million of the 2019 Notes tendered and repaid on February 27, 2018. On February 20, 2018, Snap-on also issued a notice of redemption for remaining outstanding 2019 Notes not tendered, with the redemption completed on March 22, 2018. The total cash cost for this tender and redemption was $209.1 million, including accrued interest of $1.5 million. Snap-on recorded $7.8 million for the loss on the early extinguishment of debt related to the 2019 Notes, which included the redemption premium and other issuance costs associated with this debt in "Other income (expense) - net" on the accompanying Consolidated Statement of Earnings. See Note 17 for additional information on Other income (expense) - net.

On February 20, 2018, Snap-on sold, at a discount, $400 million of unsecured 4.10% long-term notes that mature on March 1, 2048 (the "2048 Notes"). Interest on the 2048 Notes accrues at a rate of 4.10% per year and is payable semi-annually. Snap-on used a portion of the $395.4 million of net proceeds from the sale of the 2048 Notes, reflecting $3.5 million of transaction costs, to repay the 2019 Notes. The remaining net proceeds were used to repay a portion of its then-outstanding commercial paper borrowings and for general corporate purposes.

On September 16, 2019, Snap-on entered into a five-year, $800 million multi-currency revolving credit facility that terminates on September 16, 2024 (the "Credit Facility"); no amounts were outstanding under the Credit Facility as of December 28, 2019. The Credit Facility amended and restated in its entirety Snap-on's previous $700 million multi-currency revolving credit facility that was set to terminate on December 15, 2020. Borrowings under the Credit Facility bear interest at varying rates based on either: (i) Snap-on's then-current, long-term debt ratings; or (ii) Snap-on's then-current ratio of consolidated debt net of certain cash adjustments ("Consolidated Net Debt") to earnings before interest, taxes, depreciation, amortization and certain other adjustments for the preceding four fiscal quarters then ended (the "Consolidated Net Debt to EBITDA Ratio"). The Credit Facility's financial covenant requires that Snap-on maintain, as of each fiscal quarter end, either: (i) a ratio not greater than 0.60 to 1.00 of Consolidated Net Debt to the sum of Consolidated Net Debt plus total equity and less accumulated other comprehensive income or loss (the "Leverage Ratio"); or (ii) a Consolidated Net Debt to EBITDA Ratio not greater than 3.50 to 1.00. Snap-on may, up to two times during any five-year period during the term of the Credit Facility (including any extensions thereof), elect to increase the maximum Leverage Ratio to 0.65 to 1.00 and/or increase the maximum Consolidated Net Debt to EBITDA Ratio to 4.00 to 1.00 for four consecutive fiscal quarters in connection with certain material acquisitions (as defined in the related credit agreement). As of December 28, 2019, the company's actual ratios of 0.20 and 0.92 respectively, were both within the permitted ranges set forth in this financial covenant. Snap-on generally issues commercial paper to fund its financing needs on a short-term basis and uses the Credit Facility as back-up liquidity to support such commercial paper issuances.

Note 10: Financial Instruments

Derivatives: All derivative instruments are reported in the Consolidated Financial Statements at fair value. Changes in the fair value of derivatives are recorded each period in earnings or on the accompanying Consolidated Balance Sheets, depending on whether the derivative is designated and effective as part of a hedged transaction. Gains or losses on derivative instruments recorded in earnings are presented in the same Consolidated Statement of Earnings line that is used to present the earnings effect of the hedged item. Gains or losses on derivative instruments in accumulated other comprehensive income (loss) ("Accumulated OCI") are reclassified to earnings in the period in which earnings are affected by the underlying hedged item.

The criteria used to determine if hedge accounting treatment is appropriate are: (i) the designation of the hedge to an underlying exposure; (ii) whether or not overall risk is being reduced; and (iii) if there is a correlation between the value of the derivative instrument and the underlying hedged item. Once a derivative contract is entered into, Snap-on designates the derivative as a fair value hedge, a cash flow hedge, a hedge of a net investment in a foreign operation, or a natural hedging instrument whose change in fair value is recognized as an economic hedge against changes in the value of the hedged item. Snap-on does not use derivative instruments for speculative or trading purposes.

The company is exposed to global market risks, including the effects of changes in foreign currency exchange rates, interest rates, and the company's stock price, and therefore uses derivatives to manage financial exposures that occur in the normal course of business. The primary risks managed by using derivative instruments are foreign currency risk, interest rate risk and stock-based deferred compensation risk.

Foreign currency risk management: Snap-on has significant international operations and is subject to certain risks inherent with foreign operations that include currency fluctuations. Foreign currency exchange risk exists to the extent that Snap-on has payment obligations or receipts denominated in currencies other than the functional currency, including intercompany loans denominated in foreign currencies. To manage these exposures, Snap-on identifies naturally offsetting positions and then purchases hedging instruments to protect the residual net exposures. Snap-on manages most of these exposures on a consolidated basis, which allows for netting of certain exposures to take advantage of natural offsets. Foreign currency forward contracts ("foreign currency forwards") are used to hedge the net exposures. Gains or losses on net foreign currency hedges are intended to offset losses or gains on the underlying net exposures in an effort to reduce the earnings volatility resulting from fluctuating foreign currency exchange rates. Snap-on's foreign currency forwards are typically not designated as hedges. The fair value changes of these contracts are reported in earnings as foreign exchange gain or loss, which is included in "Other income (expense) - net" on the accompanying Consolidated Statements of Earnings. See Note 17 for additional information on Other income (expense) - net.

As of 2019 year end, Snap-on had $33.2 million of net foreign currency forward buy contracts outstanding comprised of buy contracts including $41.4 million in euros, $34.5 million in Swedish kronor, $17.4 million in Hong Kong dollars, $13.1 million in Chinese renminbi, $13.0 million in Singapore dollars, $6.0 million in Norwegian kroner, and $7.0 million in other currencies, and sell contracts comprised of $52.9 million in British pounds, $17.5 million in Canadian dollars, $10.0 million in Indian rupees, $9.6 million in Japanese yen, and $9.2 million in other currencies. As of 2018 year end, Snap-on had $26.3 million of net foreign currency forward buy contracts outstanding comprised of buy contracts including $26.7 million in euros, $23.6 million in Swedish kronor, $21.0 million in Hong Kong dollars, $10.2 million in Chinese renminbi, $8.6 million in Singapore dollars, $7.0 million in South Korean won, $6.3 million in Norwegian kroner, and $5.1 million in other currencies, and sell contracts comprised of $37.4 million in British pounds, $14.6 million in Canadian dollars, $11.0 million in Japanese yen, $8.2 million in Indian rupees, $4.1 million in Australian dollars, $3.1 million in Thai baht, and $3.8 million in other currencies.

Interest rate risk management: Snap-on aims to control funding costs by managing the exposure created by the differing maturities and interest rate structures of Snap-on's borrowings through the use of interest rate swap agreements ("interest rate swaps") and treasury lock agreements ("treasury locks").

Interest rate swaps: Snap-on enters into interest rate swaps to manage risks associated with changing interest rates related to the company's fixed rate borrowings. Interest rate swaps are accounted for as fair value hedges. The differentials paid or received on interest rate swaps are recognized as adjustments to "Interest expense" on the accompanying Consolidated Statements of Earnings. The change in fair value of the designated and qualifying derivative is recorded in "Long-term debt" on the accompanying Consolidated Balance Sheets. The notional amount of interest rate swaps outstanding and designated as fair value hedges was $100 million as of both 2019 and 2018 year end.

Consolidated Balance Sheets Line Item Where Hedge Item is Recorded	Carrying Amount of the Hedged Assets/(Liabilities) *(in millions)*		Cumulative Amount of Fair Value Hedging Adjustment Included in the Carrying Amount of the Hedged Assets/ (Liabilities) *(in millions)*	
	2019	2018	2019	2018
Long-term debt (1)	($255.0)	($254.6)	($5.0)	($4.6)

(1) The interest rate swap transacted in March 2010 was designated as a hedge of the first $100 million issuance of the $250 million, 6.125% unsecured notes due in 2021.

Treasury locks: Snap-on uses treasury locks to manage the potential change in interest rates in anticipation of the issuance of fixed rate debt. Treasury locks are accounted for as cash flow hedges. The differentials to be paid or received on treasury locks related to the anticipated issuance of fixed rate debt are initially recorded in Accumulated OCI for derivative instruments that are designated and qualify as cash flow hedges. Upon the issuance of debt, the related amount in Accumulated OCI is released over the term of the debt and recognized as an adjustment to interest expense on the Consolidated Statements of Earnings.

Snap-on entered into a $300 million treasury lock in the fourth quarter of 2017 to manage changes in interest rates in anticipation of the issuance of fixed rate debt in the first quarter of 2018. In the first quarter of 2018, Snap-on settled the outstanding $300 million treasury lock after it was deemed to be an ineffective hedge related to the 2048 Notes, which were issued in February 2018. The $13.3 million gain on the settlement of the treasury lock was recorded in "Other income (expense) - net" on the accompanying Consolidated Statements of Earnings. There were no treasury locks outstanding as of both December 28, 2019 and December 29, 2018. See Note 17 for additional information on Other income (expense) - net.

Stock-based deferred compensation risk management: Snap-on aims to manage market risk associated with the stock-based portion of its deferred compensation plans through the use of prepaid equity forward agreements ("equity forwards"). Equity forwards are used to aid in offsetting the potential mark-to-market effect on stock-based deferred compensation from changes in Snap-on's stock price. Since stock-based deferred compensation liabilities increase as the company's stock price rises and decrease as the company's stock price declines, the equity forwards are intended to mitigate the potential impact on deferred compensation expense that may result from such mark-to-market changes. As of 2019 and 2018 year end, Snap-on had equity forwards in place intended to manage market risk with respect to 89,600 shares and 99,100 shares, respectively, of Snap-on common stock associated with its deferred compensation plans.

Counterparty risk: Snap-on is exposed to credit losses in the event of non-performance by the counterparties to its various financial agreements, including its foreign currency forward contracts, interest rate swap agreements, treasury lock agreements and prepaid equity forward agreements. Snap-on does not obtain collateral or other security to support financial instruments subject to credit risk, but monitors the credit standing of the counterparties and generally enters into agreements with financial institution counterparties with a credit rating of A- or better. Snap-on does not anticipate non-performance by its counterparties, but cannot provide assurances.

Fair value measurements: The fair value measurement hierarchy prioritizes the inputs used to measure fair value. The hierarchy gives the highest priority ("Level 1") to unadjusted quoted prices in active markets for identical assets and liabilities and the lowest priority ("Level 3") to unobservable inputs. Fair value measurements primarily based on observable market information are given a "Level 2" priority.

Snap-on has derivative assets and liabilities related to interest rate swaps, treasury locks, foreign currency forwards and equity forwards that are measured at Level 2 fair value on a recurring basis. The fair values of derivative instruments included within the accompanying Consolidated Balance Sheets as of 2019 and 2018 year end are as follows:

		2019		2018	
(Amounts in millions)	Balance Sheet Presentation	Derivative Assets Fair Value	Derivative Liability Fair Value	Derivative Assets Fair Value	Derivative Liability Fair Value
Derivatives designated as hedging instruments:					
Interest rate swaps	Other assets	$ 5.0	$ —	$ 4.6	$ —
Derivatives not designated as hedging instruments:					
Foreign currency forwards	Prepaid expenses and other assets	$ 3.5	$ —	$ 2.8	$ —
Foreign currency forwards	Other accrued liabilities	—	4.6	—	3.2
Equity forwards	Prepaid expenses and other assets	15.2	—	14.3	—
		18.7	4.6	17.1	3.2
Total derivative instruments		$ 23.7	$ 4.6	$ 21.7	$ 3.2

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between participants at the measurement date. Level 2 fair value measurements for derivative assets and liabilities are measured using quoted prices in active markets for similar assets and liabilities. Interest rate swaps are valued based on the six-month LIBOR swap rate for similar instruments. Foreign currency forwards are valued based on exchange rates quoted by domestic and foreign banks for similar instruments. Equity forwards are valued using a market approach based primarily on the company's stock price at the reporting date. The company did not have any derivative assets or liabilities measured at Level 1 or Level 3, nor did it implement any changes in its valuation techniques as of and for its 2019 and 2018 years ended.

The effect of derivative instruments designated as cash flow hedges as included in the Accumulated OCI on the Consolidated Balance Sheets is as follows:

	Amount of Gain (Loss) Recognized in Other Comprehensive Income on Derivative		
(Amounts in millions)	2019	2018	2017
Derivatives in Hedging Relationships			
Treasury locks	$ —	$ (0.8)	$ 6.9

The effect of derivative instruments designated as fair value and cash flow hedges as included in the Consolidated Statements of Earnings is as follows:

	Gain (Loss) Recognized in Income on Fair Value and Cash Flow Hedging Relationships					
	2019		2018		2017	
(Amounts in millions)	Interest expense	Other income (expense) - net	Interest expense	Other income (expense) - net	Interest expense	Other income (expense) - net
Total amounts of income and expense presented in the Consolidated Statements of Earnings	$ (49.0)	$ 8.8	$ (50.4)	$ 4.2	$ (52.4)	$ (7.8)
Gain (loss) on fair value hedging relationships						
Interest rate swaps						
Long-term debt	$ (15.4)	$ —	$ (15.4)	$ —	$ (15.4)	$ —
Derivatives designated as hedging instruments	2.0	—	1.5	—	2.8	—
Gain (loss) on cash flow hedging relationships						
Treasury locks						
Gain reclassified from accumulated OCI into income	$ 1.5	$ —	$ 1.5	$ —	$ 1.6	$ —
Gain on settlement	—	—	—	13.3	—	—

As of 2019 year end, the maximum maturity date of any fair value hedge was two years. During the next 12 months, Snap-on expects to reclassify into earnings net gains from Accumulated OCI of approximately $1.1 million after tax at the time the underlying hedge transactions are realized.

The effects of derivative instruments not designated as hedging instruments as included in the Consolidated Statements of Earnings are as follows:

Derivatives not designated as hedging instruments	Statement of Earnings Presentation	Gain (Loss) Recognized in Income on Derivatives		
(Amounts in millions)		2019	2018	2017
Gain (loss) on derivative relationships				
Foreign currency forwards	Other income (expense) – net	$ (20.0)	$ (40.4)	$ (25.8)
Net exposures	Other income (expense) – net	16.4	36.5	18.8
Equity forwards	Operating expenses	$ 3.0	$ (2.1)	$ 0.9
Stock-based deferred compensation liabilities	Operating expenses	(3.0)	2.0	(0.8)

Snap-on's foreign currency forwards are typically not designated as hedges for financial reporting purposes. The fair value changes of foreign currency forwards not designated as hedging instruments are reported in earnings as foreign exchange gain or loss in "Other income (expense) – net" on the accompanying Consolidated Statements of Earnings. See Note 17 for additional information on "Other income (expense) – net."

Snap-on's equity forwards are not designated as hedges for financial reporting purposes. Fair value changes of both the equity forwards and related stock-based (mark-to-market) deferred compensation liabilities are reported in "Operating expenses" on the accompanying Consolidated Statements of Earnings.

Fair value of financial instruments: The fair values of financial instruments that do not approximate the carrying values in the financial statements as of 2019 and 2018 year end are as follows:

	2019		2018	
(Amounts in millions)	Carrying Value	Fair Value	Carrying Value	Fair Value
Finance receivables – net	$ 1,633.6	$ 1,920.6	$ 1,592.9	$ 1,845.4
Contract receivables – net	460.8	505.5	443.2	481.2
Long-term debt and notes payable	1,149.8	1,238.8	1,132.3	1,136.0

The following methods and assumptions were used in estimating the fair value of financial instruments:

- Finance and contract receivables include both short-term and long-term receivables. The fair value estimates of finance and contract receivables are derived utilizing discounted cash flow analyses performed on groupings of receivables that are similar in terms of loan type and characteristics. The cash flow analyses consider recent prepayment trends where applicable. The cash flows are discounted over the average life of the receivables using a current market discount rate of a similar term adjusted for credit quality. Significant inputs to the fair value measurements of the receivables are unobservable and, as such, are classified as Level 3.

- Fair value of long-term debt was estimated, using Level 2 fair value measurements, based on quoted market values of Snap-on's publicly traded senior debt. The carrying value of long-term debt includes adjustments related to fair value hedges. The fair value of notes payable approximates such instruments' carrying value due to their short-term nature.

- The fair value of all other financial instruments, including trade and other accounts receivable, accounts payable and other financial instruments, approximates such instruments' carrying value due to their short-term nature.

Note 11: Pension Plans

Snap-on has several non-contributory defined benefit pension plans covering most U.S. employees and certain employees in foreign countries. Snap-on also has foreign contributory defined benefit pension plans covering certain foreign employees. Retirement benefits are generally provided based on employees' years of service and average earnings or stated amounts for years of service. Normal retirement age is 65, with provisions for earlier retirement.

The status of Snap-on's pension plans as of 2019 and 2018 year end is as follows:

(Amounts in millions)	2019	2018
Change in projected benefit obligation:		
Benefit obligation at beginning of year	$ 1,386.9	$ 1,467.6
Service cost	23.5	25.1
Interest cost	56.4	52.8
Plan participant contributions	0.5	0.5
Plan amendments	—	1.0
Benefits paid	(73.0)	(68.5)
Actuarial (gain) loss	169.5	(77.9)
Foreign currency impact	1.8	(13.7)
Benefit obligation at end of year	$ 1,565.6	$ 1,386.9

(Amounts in millions)	2019	2018
Change in plan assets:		
Fair value of plan assets at beginning of year	$ 1,215.6	$ 1,305.0
Actual (loss) gain on plan assets	258.7	(72.8)
Employer contributions	50.8	61.3
Plan participant contributions	0.4	0.5
Benefits paid	(73.0)	(68.5)
Foreign currency impact	3.0	(9.9)
Fair value of plan assets at end of year	$ 1,455.5	$ 1,215.6
Unfunded status at end of year	$ (110.1)	$ (171.3)

The increase in the defined benefit pension plans benefit obligations in 2019 was primarily due to a decrease in the discount rate in 2019 as compared to 2018.

Amounts recognized in the Consolidated Balance Sheets as of 2019 and 2018 year end are as follows:

(Amounts in millions)	2019	2018
Other assets	$ 17.3	$ 4.3
Accrued benefits	(5.3)	(4.3)
Pension liabilities	(122.1)	(171.3)
Net liability	$ (110.1)	$ (171.3)

Amounts included in Accumulated OCI on the accompanying Consolidated Balance Sheets as of 2019 and 2018 year end are as follows:

(Amounts in millions)	2019	2018
Net loss, net of tax of $104.8 million and $158.8 million, respectively	$ (333.8)	$ (301.9)
Prior service cost, net of tax of ($0.1) million and $0.4 million, respectively	(0.6)	(0.2)
Total amount included in Accumulated OCI	$ (334.4)	$ (302.1)

The accumulated benefit obligation for Snap-on's pension plans as of 2019 and 2018 year end was $1,478.0 million and $1,316.1 million, respectively.

The projected benefit obligation, accumulated benefit obligation and fair value of plan assets for Snap-on's pension plans as of 2019 and 2018 year end are as follows:

(Amounts in millions)	2019	2018
Pension plans with accumulated benefit obligations in excess of plan assets:		
Accumulated benefit obligation	$ 231.0	$ 1,028.6
Fair value of plan assets	126.5	916.2
Pension plans with projected benefit obligations in excess of plans assets:		
Projected benefit obligation	$ 1,336.9	$ 1,183.2
Fair value of plan assets	1,209.5	1,007.6

The components of net periodic benefit cost and changes recognized in "Other comprehensive income (loss)" ("OCI") are as follows:

(Amounts in millions)	2019	2018	2017
Net periodic benefit cost:			
Service cost	$ 23.5	$ 25.1	$ 22.7
Interest cost	56.4	52.8	56.1
Expected return on plan assets	(91.5)	(88.6)	(83.4)
Amortization of unrecognized loss	25.2	32.7	27.9
Amortization of prior service credit	(0.9)	(1.2)	(1.1)
Settlement loss	—	—	0.1
Net periodic benefit cost	$ 12.7	$ 20.8	$ 22.3
Changes in benefit obligations recognized in OCI, net of tax:			
Net (gain) loss	$ 31.9	$ 35.2	$ (30.3)
Prior service cost	0.4	1.7	0.7
Total recognized in OCI	$ 32.3	$ 36.9	$ (29.6)

The components of net periodic pension cost, other than the service cost component, are included in "Other income (expense) - net" on the accompanying Consolidated Statements of Earnings. See Note 17 for additional information on Other income (expense) - net.

The worldwide weighted-average assumptions used to determine Snap-on's full-year pension costs are as follows:

	2019	2018	2017
Discount rate	4.2%	3.7%	4.2%
Expected return on plan assets	7.1%	7.1%	7.2%
Rate of compensation increase	3.4%	3.4%	3.4%

The worldwide weighted-average assumptions used to determine Snap-on's projected benefit obligation as of 2019 and 2018 year end are as follows:

	2019	2018
Discount rate	3.2%	4.4%
Rate of compensation increase	3.4%	3.4%
Interest crediting rate - U.S. cash balance plan	3.8%	3.8%

The objective of Snap-on's discount rate assumption is to reflect the rate at which the pension benefits could be effectively settled. In making this determination, the company takes into account the timing and amount of benefits that would be available under the plans. The domestic discount rate as of 2019 and 2018 year end was selected based on a cash flow matching methodology developed by the company's outside actuaries and which incorporates a review of current economic conditions. This methodology matches the plans' yearly projected cash flows for benefits and service costs to those of hypothetical bond portfolios using high-quality, AA rated or better, corporate bonds from either Moody's Investors Service or Standard & Poor's credit rating agencies available at the measurement date. This technique calculates bond portfolios that produce adequate cash flows to pay the plans' projected yearly benefits and then selects the portfolio with the highest yield and uses that yield as the recommended discount rate.

The weighted-average discount rate for Snap-on's domestic pension plans of 3.4% represents the single rate that produces the same present value of cash flows as the estimated benefit plan payments. Lowering Snap-on's domestic discount rate assumption by 50 basis points (100 basis points ("bps") equals 1.0 percent) would have increased Snap-on's 2019 domestic pension expense and projected benefit obligation by approximately $4.3 million and $74.2 million, respectively. As of 2019 year end, Snap-on's domestic projected benefit obligation comprised approximately 83% of Snap-on's worldwide projected benefit obligation. The weighted-average discount rate for Snap-on's foreign pension plans of 2.1% represents the single rate that produces the same present value of cash flows as the estimated benefit plan payments. Lowering Snap-on's foreign discount rate assumption by 50 bps would have increased Snap-on's 2019 foreign pension expense and projected benefit obligation by approximately $1.6 million and $26.8 million, respectively.

Actuarial gains and losses in excess of 10 percent of the greater of the projected benefit obligation or market-related value of assets are amortized on a straight-line basis over the average remaining service period of active participants or over the average remaining life expectancy for plans with primarily inactive participants. Prior service costs and credits resulting from plan amendments are amortized in equal annual amounts over the average remaining service period of active participants or over the average remaining life expectancy for plans with primarily inactive participants.

As a practical expedient, Snap-on uses the calendar year end as the measurement date for its plans. Snap-on funds its pension plans as required by governmental regulation and may consider discretionary contributions as conditions warrant. Snap-on intends to make contributions of $8.7 million to its foreign pension plans and $2.9 million to its domestic pension plans in 2020, as required by law. Depending on market and other conditions, Snap-on may make discretionary cash contributions to its pension plans in 2020.

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

(Amounts in millions)	Amount
Year:	
2020	$ 81.7
2021	84.3
2022	95.1
2023	91.3
2024	94.6
2025-2029	498.9

Snap-on's domestic pension plans have a long-term investment horizon and a total return strategy that emphasizes a capital growth objective. The long-term investment performance objective for Snap-on's domestic plans' assets is to achieve net of expense returns that meet or exceed the 7.25% domestic long-term return on plan assets assumption used for reporting purposes. Snap-on uses a three-year, market-related value asset method of amortizing the difference between actual and expected returns on its domestic plans' assets. As of 2019 year end, Snap-on's domestic pension plans' assets comprised approximately 87% of the company's worldwide pension plan assets.

The basis for determining the overall expected long-term return on plan assets assumption is a nominal returns forecasting method. For each asset class, future returns are estimated by identifying the premium of riskier asset classes over lower risk alternatives. The methodology constructs expected returns using a "building block" approach to the individual components of total return. These forecasts are stated in both nominal and real (after inflation) terms. This process first considers the long-term historical return premium based on the longest set of data available for each asset class. These premiums, which are calculated using the geometric mean, are then adjusted based on current relative valuation levels, macro-economic conditions, and the expected alpha related to active investment management. The asset return assumption is also adjusted by an implicit expense load for estimated administrative and investment-related expenses.

For risk and correlation assumptions, the actual experience for each asset class is reviewed for the longest time period available. Expected relationships for a 10 to 20 year time horizon are determined based upon historical results, with adjustments made for material changes.

Investments are diversified to attempt to minimize the risk of large losses. Since asset allocation is a key determinant of expected investment returns, assets are periodically rebalanced to the targeted allocation to correct significant deviations from the asset allocation policy that are caused by market fluctuations and cash flow. Asset/liability studies are conducted periodically to determine if any revisions to the strategic asset allocation policy are necessary.

Snap-on's domestic pension plans' target allocation and actual weighted-average asset allocation by asset category and fair value of plan assets as of 2019 and 2018 year end are as follows:

	Target	2019	2018
Asset category:			
Equity securities	51%	51%	49%
Debt securities and cash and cash equivalents	37%	40%	40%
Real estate and other real assets	2%	1%	1%
Hedge funds	10%	8%	10%
Total	100%	100%	100%
Fair value of plan assets *(Amounts in millions)*		$1,260.5	$1,049.0

The fair value measurement hierarchy prioritizes the inputs used to measure fair value. The hierarchy gives the highest priority (Level 1) to unadjusted quoted prices in active markets for identical assets and liabilities and the lowest priority (Level 3) to unobservable inputs. Fair value measurements primarily based on observable market information are given a Level 2 priority.

Certain equity and debt securities are valued at quoted per share or unit market prices for which an official close or last trade pricing on an active exchange is available and are categorized as Level 1 in the fair value hierarchy. If quoted market prices are not readily available for specific securities, values are estimated using quoted prices of securities with similar characteristics and are categorized as Level 2 in the fair value hierarchy. Insurance contracts are valued at the present value of the estimated future cash flows promised under the terms of the insurance contracts and are categorized as Level 2 in the fair value hierarchy.

Commingled equity securities and commingled multi-strategy funds are valued at the Net Asset Value ("NAV") per share or unit multiplied by the number of shares or units held as of the measurement date, as reported by the fund managers. The share or unit price is quoted on a private market and is based on the value of the underlying investments, which are primarily based on observable inputs; such investments that are measured at fair value using the NAV per share (or its equivalent) practical expedient have not been classified in the fair value hierarchy.

Private equity partnership funds, hedge funds, and real estate and other real assets are valued at the NAV as reported by the fund managers. Private equity partnership funds, certain hedge funds, and certain real estate and other real assets are valued based on the proportionate interest or share of net assets held by the pension plan, which is based on the estimated fair market value of the underlying investments. Certain other hedge funds and real estate and other real assets are valued at the NAV per share or unit multiplied by the number of shares or units held as of the measurement date, based on the estimated value of the underlying investments as reported by the fund managers. These investments are measured at fair value using the NAV per share (or its equivalent) practical expedient and have not been classified in the fair value hierarchy.

The company regularly reviews fund performance directly with its investment advisor and the fund managers, and performs qualitative analysis to corroborate the reasonableness of the reported NAVs. For funds for which the company did not receive a year-end NAV, the company recorded an estimate of the change in fair value for the latest period based on return estimates and other fund activity obtained from the fund managers.

The columns labeled "Investments Measured at NAV" in the following tables reflect certain investments that are measured at fair value using the NAV per share (or its equivalent) practical expedient and have not been categorized in the fair value hierarchy. The fair value amounts presented in these tables are intended to permit a reconciliation of the fair value hierarchy to the pension plan assets.

The following is a summary, by asset category, of the fair value and the level within the fair value hierarchy of Snap-on's domestic pension plans' assets as of 2019 year end:

(Amounts in millions)	Quoted Prices for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Investments Measured at NAV	Total
Asset category:				
Cash and cash equivalents	$ 25.6	$ —	$ —	$ 25.6
Equity securities:				
Domestic	95.1	—	—	95.1
Foreign	58.4	—	—	58.4
Commingled funds – domestic	—	—	263.6	263.6
Commingled funds – foreign	—	—	209.4	209.4
Private equity partnerships	—	—	17.4	17.4
Debt securities:				
Government	144.0	2.7	—	146.7
Corporate bonds	—	327.7	—	327.7
Real estate and other real assets	—	—	8.8	8.8
Hedge funds	—	—	107.8	107.8
Total	$ 323.1	$ 330.4	$ 607.0	$ 1,260.5

The following is a summary, by asset category, of the fair value and the level within the fair value hierarchy of Snap-on's domestic pension plans' assets as of 2018 year end:

(Amounts in millions)	Quoted Prices for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Investments Measured at NAV	Total
Asset category:				
Cash and cash equivalents	$ 17.8	$ —	$ —	$ 17.8
Equity securities:				
Domestic	70.5	—	—	70.5
Foreign	87.5	—	—	87.5
Commingled funds – domestic	—	—	200.6	200.6
Commingled funds – foreign	—	—	128.4	128.4
Private equity partnerships	—	—	22.7	22.7
Debt securities:				
Government	131.2	2.6	—	133.8
Corporate bonds	—	271.3	—	271.3
Real estate and other real assets	—	—	11.9	11.9
Hedge funds	—	—	104.5	104.5
Total	$ 307.0	$ 273.9	$ 468.1	$ 1,049.0

Snap-on's primary investment objective for its foreign pension plans' assets is to meet the projected obligations to the beneficiaries over a long period of time, and to do so in a manner that is consistent with the company's risk tolerance. The foreign asset allocation policies consider the company's financial strength and long-term asset class risk/return expectations, since the obligations are long term in nature. The company believes the foreign pension plans' assets, which are managed locally by professional investment firms, are well diversified.

The expected long-term rates of return on foreign plans' assets, which range from 1.3% to 5.7% as of 2019 year end, reflect management's expectations of long-term average rates of return on funds invested to provide benefits included in the plans' projected benefit obligation. The expected returns are based on outlooks for inflation, fixed income returns and equity returns, asset allocations and investment strategies. Differences between actual and expected returns on foreign pension plans' assets are recorded as an actuarial gain or loss and amortized accordingly.

Snap-on's foreign pension plans' target allocation and actual weighted-average asset allocation by asset category and fair value of plan assets as of 2019 and 2018 year end are as follows:

	Target	2019	2018
Asset category:			
Equity securities*	46%	46%	35%
Debt securities* and cash and cash equivalents	40%	40%	42%
Insurance contracts and hedge funds	14%	14%	23%
Total	100%	100%	100%
Fair value of plan assets *(Amounts in millions)*		$195.0	$166.6

* Includes commingled funds - multi-strategy

The following is a summary, by asset category, of the fair value and the level within the fair value hierarchy of Snap-on's foreign pension plans' assets as of 2019 year end:

(Amounts in millions)	Quoted Prices for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Investments Measured at NAV	Total
Asset category:				
Cash and cash equivalents	$ 0.9	$ —	$ —	$ 0.9
Commingled funds – multi-strategy	—	—	135.5	135.5
Debt securities:				
Government	10.1	—	—	10.1
Corporate bonds	—	21.4	—	21.4
Insurance contracts	—	27.1	—	27.1
Total	$ 11.0	$ 48.5	$ 135.5	$ 195.0

The following is a summary, by asset category, of the fair value and the level within the fair value hierarchy of Snap-on's foreign pension plans' assets as of 2018 year end:

(Amounts in millions)	Quoted Prices for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Investments Measured at NAV	Total
Asset category:				
Cash and cash equivalents	$ 1.2	$ —	$ —	$ 1.2
Commingled funds – multi-strategy	—	—	101.5	101.5
Debt securities:				
Government	8.3	—	—	8.3
Corporate bonds	—	17.5	—	17.5
Insurance contracts	—	23.8	—	23.8
Hedge fund	—	—	14.3	14.3
Total	$ 9.5	$ 41.3	$ 115.8	$ 166.6

Snap-on has several 401(k) plans covering certain U.S. employees. Snap-on's employer match to the 401(k) plans is made with cash contributions. For 2019, 2018 and 2017, Snap-on recognized $9.8 million, $9.4 million and $8.9 million, respectively, of expense related to its 401(k) plans.

Note 12: Postretirement Plans

Snap-on provides health care benefits for certain retired U.S. employees. Employees retiring prior to 1989 were eligible for retiree medical coverage upon reaching early retirement age, with no retiree contributions required. Benefits are paid based on deductibles and percentages of covered expenses and take into consideration payments made by Medicare and other insurance coverage.

Since 1989, U.S. retirees have been eligible for comprehensive major medical plans. Benefits are paid based on deductibles and percentages of covered expenses, and plan provisions allow for benefit and coverage changes. Most retirees are required to pay the entire cost of the coverage, but Snap-on may elect to subsidize the cost of coverage under certain circumstances.

Snap-on has a Voluntary Employees Beneficiary Association ("VEBA") trust for the funding of existing postretirement health care benefits for certain non-salaried retirees in the United States; all other retiree health care plans are unfunded.

The status of Snap-on's U.S. postretirement health care plans as of 2019 and 2018 year end is as follows:

(Amounts in millions)	2019	2018
Change in accumulated postretirement benefit obligation:		
Benefit obligation at beginning of year	$ 46.8	$ 52.5
Interest cost	1.9	1.8
Plan participant contributions	0.3	0.3
Benefits paid	(4.2)	(4.5)
Actuarial (gain) loss	4.4	(3.3)
Benefit obligation at end of year	$ 49.2	$ 46.8
Change in plan assets:		
Fair value of plan assets at beginning of year	$ 12.1	$ 13.4
Actual return on plan assets	1.5	(0.2)
Employer contributions	3.1	3.1
Plan participant contributions	0.3	0.3
Benefits paid	(4.2)	(4.5)
Fair value of plan assets at end of year	$ 12.8	$ 12.1
Unfunded status at end of year	$ (36.4)	$ (34.7)

Amounts recognized in the Consolidated Balance Sheets as of 2019 and 2018 year end are as follows:

(Amounts in millions)	2019	2018
Accrued benefits	$ (2.8)	$ (2.9)
Retiree health care benefits	(33.6)	(31.8)
Net liability	$ (36.4)	$ (34.7)

Amounts included in Accumulated OCI on the accompanying Consolidated Balance Sheets as of 2019 and 2018 year end are as follows:

(Amounts in millions)	2019	2018
Net gain, net of tax of $1.1 million and $3.1 million, respectively	$ 3.2	$ 5.6

The components of net periodic benefit cost and changes recognized in OCI are as follows:

(Amounts in millions)	2019	2018	2017
Net periodic benefit cost:			
Interest cost	$ 1.9	$ 1.8	$ 2.1
Expected return on plan assets	(0.7)	(0.8)	(0.8)
Amortization of unrecognized gain	(0.8)	(0.4)	(0.3)
Net periodic benefit cost	$ 0.4	$ 0.6	$ 1.0
Changes in benefit obligations recognized in OCI, net of tax:			
Net (gain) loss	$ 2.4	$ (1.4)	$ 0.6

The components of net periodic postretirement health care cost, other than the service cost component, are included in "Other income (expense) - net" on the accompanying Consolidated Statements of Earnings. See Note 17 for additional information on Other income (expense) - net.

The weighted-average discount rate used to determine Snap-on's postretirement health care expense is as follows:

	2019	2018	2017
Discount rate	4.2%	3.6%	4.1%

The weighted-average discount rate used to determine Snap-on's accumulated benefit obligation is as follows:

	2019	2018
Discount rate	3.1%	4.2%

The methodology for selecting the year-end 2019 and 2018 weighted-average discount rate for the company's domestic postretirement plans was to match the plans' yearly projected cash flows for benefits and service costs to those of hypothetical bond portfolios using high-quality, AA rated or better, corporate bonds from either Moody's Investors Service or Standard & Poor's credit rating agencies available at the measurement date. As a practical expedient, Snap-on uses the calendar year end as the measurement date for its plans.

For 2020, the actuarial calculations assume a pre-65 health care cost trend rate of 5.6% and a post-65 health care cost trend rate of 6.1%, both decreasing gradually to 4.5% in 2038 and thereafter.

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

(Amounts in millions)	Amount
Year:	
2020	$ 3.7
2021	3.8
2022	3.8
2023	3.9
2024	4.0
2025-2029	20.3

The objective of the VEBA trust is to achieve net of expense returns that meet or exceed the 5.4% long-term return on plan assets assumption used for reporting purposes. Investments are diversified to attempt to minimize the risk of large losses. Since asset allocation is a key determinant of expected investment returns, assets are periodically rebalanced to the targeted allocation to correct significant deviations from the asset allocation policy that are caused by market fluctuations and cash flow.

The basis for determining the overall expected long-term return on plan assets assumption is a nominal returns forecasting method. For each asset class, future returns are estimated by identifying the premium of riskier asset classes over lower risk alternatives. The methodology constructs expected returns using a "building block" approach to the individual components of total return. These forecasts are stated in both nominal and real (after inflation) terms. This process first considers the long-term historical return premium based on the longest set of data available for each asset class. These premiums, which are calculated using the geometric mean, are then adjusted based on current relative valuation levels and macro-economic conditions. The asset return assumption is also adjusted by an implicit expense load for estimated administrative and investment-related expenses.

Snap-on's VEBA plan target allocation and actual weighted-average asset allocation by asset category and fair value of plan assets as of 2019 and 2018 year end are as follows:

	Target	2019	2018
Asset category:			
Debt securities and cash and cash equivalents	46%	51%	56%
Equity securities	29%	31%	26%
Hedge funds	25%	18%	18%
Total	100%	100%	100%
Fair value of plan assets *(Amounts in millions)*		$12.8	$12.1

The fair value measurement hierarchy prioritizes the inputs used to measure fair value. The hierarchy gives the highest priority (Level 1) to unadjusted quoted prices in active markets for identical assets and liabilities and the lowest priority (Level 3) to unobservable inputs. Fair value measurements primarily based on observable market information are given a Level 2 priority.

Debt securities are valued at quoted per share or unit market prices for which an official close or last trade pricing on an active exchange is available and are categorized as Level 1 in the fair value hierarchy.

Equity securities are valued at the NAV per share or unit multiplied by the number of shares or units held as of the measurement date, as reported by the fund managers. The share or unit price is quoted on a private market and is based on the value of the underlying investments, which are primarily based on observable inputs; such investments that are measured at fair value using the NAV per share (or its equivalent) practical expedient have not been classified in the fair value hierarchy.

Hedge funds are stated at the NAV per share or unit (based on the estimated fair market value of the underlying investments) multiplied by the number of shares or units held as of the measurement date, as reported by the fund managers. These investments are measured at fair value using the NAV per share (or its equivalent) practical expedient and have not been classified in the fair value hierarchy.

The company regularly reviews fund performance directly with its investment advisor and the fund managers, and performs qualitative analysis to corroborate the reasonableness of the reported NAVs. For funds for which the company did not receive a year-end NAV, the company recorded an estimate of the change in fair value for the latest period based on return estimates and other fund activity obtained from the fund managers.

The columns labeled "Investments Measured at NAV" in the following tables are measured at fair value using the NAV per share (or its equivalent) practical expedient and have not been categorized in the fair value hierarchy. The fair value amounts presented in these tables are intended to permit a reconciliation of the fair value hierarchy to the VEBA plan assets.

The following is a summary, by asset category, of the fair value and the level within the fair value hierarchy of the VEBA plan assets as of 2019 year end:

(Amounts in millions)	Quoted Prices for Identical Assets (Level 1)	Investments Measured at NAV	Total
Asset category:			
Cash and cash equivalents	$ 0.5	$ —	$ 0.5
Debt securities	6.0	—	6.0
Equity securities	—	4.0	4.0
Hedge fund	—	2.3	2.3
Total	$ 6.5	$ 6.3	$ 12.8

The following is a summary, by asset category, of the fair value and the level within the fair value hierarchy of the VEBA plan assets as of 2018 year end:

(Amounts in millions)	Quoted Prices for Identical Assets (Level 1)	Investments Measured at NAV	Total
Asset category:			
Cash and cash equivalents	$ 1.3	$ —	$ 1.3
Debt securities	5.5	—	5.5
Equity securities	—	3.1	3.1
Hedge fund	—	2.2	2.2
Total	$ 6.8	$ 5.3	$ 12.1

Note 13: Stock-based Compensation and Other Stock Plans

The 2011 Incentive Stock and Awards Plan (the “2011 Plan”) provides for the grant of stock options, performance awards, SARs and restricted stock awards (which may be designated as “restricted stock units” or “RSUs”). No further grants are being made under its predecessor, the 2001 Incentive Stock and Awards Plan (the “2001 Plan”), although outstanding awards under the 2001 Plan will continue in accordance with their terms. As of 2019 year end, the 2011 Plan had 2,024,642 shares available for future grants. The company uses treasury stock to deliver shares under both the 2001 and 2011 Plans.

Net stock-based compensation expense was $23.8 million in 2019, $27.2 million in 2018 and $30.3 million in 2017. Cash received from stock purchase and option plan exercises was $51.4 million in 2019, $55.5 million in 2018 and $46.2 million in 2017. The tax benefit realized from both the exercise and vesting of share-based payment arrangements was $9.6 million in 2019, $14.8 million in 2018 and $20.9 million in 2017.

Stock options: Stock options are granted with an exercise price equal to the market value of a share of Snap-on’s common stock on the date of grant and have a contractual term of ten years. Stock option grants vest ratably on the first, second and third anniversaries of the date of grant.

The fair value of each stock option award is estimated on the date of grant using the Black-Scholes valuation model. The company uses historical data regarding stock option exercise and forfeiture behaviors for different participating groups to estimate the period of time that options granted are expected to be outstanding. Expected volatility is based on the historical volatility of the company’s stock for the length of time corresponding to the expected term of the option. The expected dividend yield is based on the company’s historical dividend payments. The risk-free interest rate is based on the U.S. treasury yield curve on the grant date for the expected term of the option.

The following weighted-average assumptions were used in calculating the fair value of stock options granted during 2019, 2018 and 2017, using the Black-Scholes valuation model:

	2019	2018	2017
Expected term of option *(in years)*	5.53	5.35	5.15
Expected volatility factor	21.30%	20.08%	22.01%
Expected dividend yield	1.79%	1.68%	1.63%
Risk-free interest rate	2.54%	2.71%	1.78%

A summary of stock option activity during 2019 is presented below:

	Shares *(in thousands)*	Exercise Price per Share*	Remaining Contractual Term* *(in years)*	Aggregate Intrinsic Value *(in millions)*
Outstanding at beginning of year	3,130	$ 127.57		
Granted	462	155.93		
Exercised	(422)	94.95		
Forfeited or expired	(56)	161.10		
Outstanding at end of year	3,114	135.60	6.1	$ 104.6
Exercisable at end of year	2,173	125.00	5.0	96.0

* Weighted-average

The weighted-average grant date fair value of options granted was $29.98 in 2019, $30.21 in 2018 and $31.13 in 2017. The intrinsic value of options exercised was $29.9 million in 2019, $43.8 million in 2018 and $33.3 million in 2017. The fair value of stock options vested was $15.7 million in 2019, $16.0 million in 2018 and $14.0 million in 2017.

As of 2019 year end, there was $15.6 million of unrecognized compensation cost related to non-vested stock options that is expected to be recognized as a charge to earnings over a weighted-average period of 1.4 years.

Performance awards: Performance awards, which are granted as performance share units ("PSUs") and performance-based RSUs, are earned and expensed using the fair value of the award over a contractual term of three years based on the company's performance. Vesting of the performance awards is dependent upon performance relative to pre-defined goals for revenue growth and return on net assets for the applicable performance period. For performance achieved above specified levels, the recipient may earn additional shares of stock, not to exceed 100% of the number of performance awards initially granted.

The PSUs have a three-year performance period based on the results of the consolidated financial metrics of the company. The performance-based RSUs have a one-year performance period based on the results of the consolidated financial metrics of the company followed by a two-year cliff vesting schedule, assuming continued employment.

The fair value of performance awards is calculated using the market value of a share of Snap-on's common stock on the date of grant and assumed forfeitures based on recent historical experience; in recent years, forfeitures have not been significant. The weighted-average grant date fair value of performance awards granted during 2019, 2018 and 2017 was $155.92, $161.18 and $168.70, respectively. Earned PSUs totaled 21,183 shares as of 2019 year end, 32,154 shares as of 2018 year end and 50,316 shares as of 2017 year end. Earned PSUs vest and are generally paid out following the conclusion of the applicable performance period upon approval by the Organization and Executive Compensation Committee of the company's Board of Directors (the "Board"). PSUs related to 32,114 shares, 50,182 shares and 60,980 shares were paid out in 2019, 2018 and 2017, respectively.

Based on the company's 2019 performance, none of the RSUs granted in 2019 were earned. Based on the company's 2018 performance, 33,170 RSUs granted in 2018 were earned; assuming continued employment, these RSUs will vest at the end of fiscal 2020. Based on the company's 2017 performance, 13,648 RSUs granted in 2017 were earned; these RSUs vested as of fiscal 2019 year end and were paid out shortly thereafter.

Changes to the company's non-vested performance awards in 2019 are as follows:

	Shares *(in thousands)*	Fair Value Price per Share*
Non-vested performance awards at beginning of year	120	$ 164.00
Granted	84	155.92
Vested	(35)	168.47
Cancellations and other	(71)	159.21
Non-vested performance awards at end of year	98	158.94

* Weighted-average

As of 2019 year end, there was $7.3 million of unrecognized compensation cost related to non-vested performance awards that is expected to be recognized as a charge to earnings over a weighted-average period of 1.6 years.

Stock appreciation rights: The company also issues stock-settled and cash-settled SARs to certain key non-U.S. employees. SARs have a contractual term of ten years and vest ratably on the first, second and third anniversaries of the date of grant. SARs are granted with an exercise price equal to the market value of a share of Snap-on's common stock on the date of grant.

Stock-settled SARs are accounted for as equity instruments and provide for the issuance of Snap-on common stock equal to the amount by which the company's stock has appreciated over the exercise price. Stock-settled SARs have an effect on dilutive shares and shares outstanding as any appreciation of Snap-on's common stock value over the exercise price will be settled in shares of common stock. Cash-settled SARs provide for the cash payment of the excess of the fair market value of Snap-on's common stock price on the date of exercise over the grant price. Cash-settled SARs have no effect on dilutive shares or shares outstanding as any appreciation of Snap-on's common stock over the grant price is paid in cash and not in common stock.

The fair value of stock-settled SARs is estimated on the date of grant using the Black-Scholes valuation model. The fair value of cash-settled SARs is revalued (mark-to-market) each reporting period using the Black-Scholes valuation model based on Snap-on's period-end stock price. The company uses historical data regarding SARs exercise and forfeiture behaviors for different participating groups to estimate the expected term of the SARs granted based on the period of time that similar instruments granted are expected to be outstanding. Expected volatility is based on the historical volatility of the company's stock for the length of time corresponding to the expected term of the SARs. The expected dividend yield is based on the company's historical dividend payments. The risk-free interest rate is based on the U.S. treasury yield curve in effect as of the grant date (for stock-settled SARs) or reporting date (for cash-settled SARs) for the length of time corresponding to the expected term of the SARs.

The following weighted-average assumptions were used in calculating the fair value of stock-settled SARs granted during 2019, 2018 and 2017, using the Black-Scholes valuation model:

	2019	2018	2017
Expected term of stock-settled SARs *(in years)*	3.65	3.58	3.99
Expected volatility factor	22.60%	20.08%	19.39%
Expected dividend yield	1.81%	1.63%	1.46%
Risk-free interest rate	2.48%	2.40%	1.55%

Changes to the company's stock-settled SARs in 2019 are as follows:

	Stock-settled SARs *(in thousands)*	Exercise Price per Share*	Remaining Contractual Term* *(in years)*	Aggregate Intrinsic Value *(in millions)*
Outstanding at beginning of year	372	$ 147.41		
Granted	92	155.95		
Exercised	(2)	119.43		
Forfeited or expired	(12)	150.54		
Outstanding at end of year	450	149.18	6.9	$ 9.0
Exercisable at end of year	270	142.09	5.9	7.3

* Weighted-average

The weighted-average grant date fair value of stock-settled SARs granted was $26.45 in 2019, $24.71 in 2018 and $24.13 in 2017. The intrinsic value of stock-settled SARs exercised was $0.1 million in 2019, $1.8 million in 2018 and $0.9 million in 2017. The fair value of stock-settled SARs vested was $2.1 million in 2019, $2.2 million in 2018 and $2.1 million in 2017.

As of 2019 year end there was $2.6 million of unrecognized compensation cost related to non-vested stock-settled SARs that is expected to be recognized as a charge to earnings over a weighted-average period of 1.5 years.

The following weighted-average assumptions were used in calculating the fair value of cash-settled SARs granted during 2019, 2018 and 2017, using the Black-Scholes valuation model:

	2019	2018	2017
Expected term of cash-settled SARs *(in years)*	2.87	2.76	3.09
Expected volatility factor	23.33%	21.96%	19.93%
Expected dividend yield	2.02%	1.75%	1.59%
Risk-free interest rate	1.60%	2.50%	1.98%

The intrinsic value of cash-settled SARs exercised was $1.2 million in 2019, $3.4 million in 2018 and $1.6 million in 2017. The fair value of cash-settled SARs vested during both 2019 and 2018 was $0.1 million and $0.2 million in 2017.

Changes to the company's non-vested cash-settled SARs in 2019 are as follows:

	Cash-settled SARs *(in thousands)*	Fair Value Price per Share*
Non-vested cash-settled SARs at beginning of year	3	$ 14.89
Granted	1	29.94
Vested	(2)	28.68
Non-vested cash-settled SARs at end of year	2	25.96

* Weighted-average

As of 2019 year end there was $0.1 million of unrecognized compensation cost related to non-vested cash-settled SARs that is expected to be recognized as a charge to earnings over a weighted-average period of 1.5 years.

Restricted stock awards – non-employee directors: The company awarded 7,605 shares, 6,975 shares and 6,966 shares of restricted stock to non-employee directors in 2019, 2018 and 2017, respectively. The fair value of the restricted stock awards is expensed over a one-year vesting period based on the fair value on the date of grant. All restrictions for the restricted stock generally lapse upon the earlier of the first anniversary of the grant date, the recipient's death or disability or in the event of a change in control, as defined in the 2011 Plan. If termination of the recipient's service occurs prior to the first anniversary of the grant date for any reason other than death or disability, the shares of restricted stock would be forfeited, unless otherwise determined by the Board.

Directors' fee plan: Under the Directors' 1993 Fee Plan, as amended, non-employee directors may elect to receive up to 100% of their fees and retainer in shares of Snap-on's common stock. Directors may elect to defer receipt of all or part of these shares. For 2019, 2018 and 2017, issuances under the Directors' Fee Plan totaled 1,784 shares, 1,727 shares and 1,800 shares, respectively, of which 1,374 shares, 1,315 shares and 1,312 shares, respectively, were deferred. As of 2019 year end, shares reserved for issuance to directors under this plan totaled 184,146 shares.

Employee stock purchase plan: Substantially all Snap-on employees in the United States and Canada are eligible to participate in an employee stock purchase plan. The purchase price of the company's common stock to participants is the lesser of the mean of the high and low price of the stock on the beginning date (May 15) or ending date (the following May 14) of each plan year. For 2019, 2018 and 2017, issuances under this plan totaled 25,820 shares, 22,794 shares and 26,963 shares, respectively. As of 2019 year end, shares reserved for issuance under this plan totaled 704,986 shares and Snap-on held participant contributions of approximately $2.2 million. Participants are able to withdraw from the plan at any time prior to the ending date and receive back all contributions made during the plan year. Compensation expense for plan participants was $0.1 million in 2019, $0.3 million in 2018 and $0.1 million in 2017.

Franchisee stock purchase plan: All franchisees in the United States and Canada are eligible to participate in a franchisee stock purchase plan. The purchase price of the company's common stock to participants is the lesser of the mean of the high and low price of the stock on the beginning date (May 15) or ending date (the following May 14) of each plan year. For 2019, 2018 and 2017, issuances under this plan totaled 49,921 shares, 46,704 shares and 47,314 shares, respectively. As of 2019 year end, shares reserved for issuance under this plan totaled 469,530 shares and Snap-on held participant contributions of approximately $4.9 million. Participants are able to withdraw from the plan at any time prior to the ending date and receive back all contributions made during the plan year. The company recognized mark-to-market expense of $0.8 million in 2019, $0.6 million in 2018, and $0.2 million in 2017.

Note 14: Capital Stock

Snap-on has undertaken repurchases of Snap-on common stock from time to time to offset dilution created by shares issued for employee and franchisee stock purchase plans, stock awards and other corporate purposes. Snap-on repurchased 1,495,000 shares, 1,769,000 shares and 1,820,000 shares in 2019, 2018 and 2017, respectively. As of 2019 year end, Snap-on has remaining availability to repurchase up to an additional $359.6 million in common stock pursuant to Board authorizations. The purchase of Snap-on common stock is at the company's discretion, subject to prevailing financial and market conditions.

Cash dividends paid in 2019, 2018 and 2017 totaled $216.6 million, $192.0 million and $169.4 million, respectively. Cash dividends per share in 2019, 2018 and 2017 were $3.93, $3.41 and $2.95, respectively. On February 13, 2020, the company's Board declared a quarterly dividend of $0.00 per share, payable on March 9, 2020, to shareholders of record on February 24, 2020.

Note 15: Commitments and Contingencies

Snap-on provides product warranties for specific product lines and accrues for estimated future warranty cost in the period in which the sale is recorded. Snap-on calculates its accrual requirements based on historic warranty loss experience that is periodically adjusted for recent actual experience, including the timing of claims during the warranty period and actual costs incurred. Snap-on's product warranty accrual activity for 2019, 2018 and 2017 is as follows:

(Amounts in millions)	2019	2018	2017
Warranty accrual:			
Beginning of year	$ 17.1	$ 17.2	$ 16.0
Additions	16.0	14.9	15.2
Usage	(15.8)	(15.0)	(14.0)
End of year	$ 17.3	$ 17.1	$ 17.2

Approximately 2,650 employees, or 21% of Snap-on's worldwide workforce, are represented by unions and/or covered under collective bargaining agreements. The number of covered union employees whose contracts expire over the next five years approximates 1,825 employees in 2020, 650 employees in 2021, and 175 employees in 2022; there are no contracts currently scheduled to expire in 2023 or 2024. In recent years, Snap-on has not experienced any significant work slowdowns, stoppages or other labor disruptions.

Snap-on is involved in various legal matters that are being litigated and/or settled in the ordinary course of business. Although it is not possible to predict the outcome of legal matters, management believes that the results of all legal matters will not have a material impact on Snap-on's consolidated financial position, results of operations or cash flows.

The Consolidated Balance Sheet as of December 29, 2018, included an accrual of $30.9 million related to a judgment from the fourth quarter of 2017 for a patent-related litigation matter that was being appealed, which was subsequently settled in 2019. The company recognized an $11.6 million benefit in "Operating expenses" on the Consolidated Statements of Earnings in fiscal 2019 as a result of the settlement.

Note 16: Leases

At the beginning of fiscal 2019, Snap-on adopted ASU No. 2016-02, *Leases (Topic 842)*. The adoption of Topic 842 did not have a significant impact on the company's consolidated financial statements. Finance leases and lessor accounting remained substantially unchanged. The adoption of Topic 842 impacted the company's previously reported results as follows:

(Amounts in millions)	Classification	Balance at December 29, 2018	Topic 842 Adjustments	Opening Balance at December 30, 2018
Assets				
Finance lease assets	Property and equipment - net	$ 7.8	$ —	$ 7.8
Operating lease assets	Operating lease right-of-use assets	—	60.5	60.5
Liabilities				
Current:				
Finance lease liabilities	Other accrued liabilities	$ 1.2	$ —	$ 1.2
Operating lease liabilities	Other accrued liabilities	—	20.2	20.2
Non-current:				
Finance lease liabilities	Other long-term liabilities	$ 6.6	$ —	$ 6.6
Operating lease liabilities	Operating lease liabilities	—	40.4	40.4

Lessee accounting: Snap-on determines if an arrangement is a lease at inception. Snap-on has operating and finance leases for manufacturing plants, distribution centers, software development facilities, financial services offices, data centers, company store vans and certain equipment. Snap-on's leases have lease terms of one year to 20 years and some include options to extend and/or terminate the lease. The exercise of lease renewal options is at the company's sole discretion. Certain leases also include options to purchase the leased property. When deemed reasonably certain of exercise, the renewal and purchase options are included in the determination of the lease term and lease payment obligation, respectively. The depreciable life of assets and leasehold improvements are limited to the expected term, unless there is a transfer of title or purchase option reasonably certain of exercise. The company's lease agreements do not contain any material variable lease payments, material residual value guarantees or any material restrictive covenants.

ROU assets represent Snap-on's right to use an underlying asset for the lease term and lease liabilities represent the obligation to make lease payments arising from the lease. Operating lease ROU assets and liabilities are recognized at commencement date of the lease based on the present value of lease payments over the lease term. When readily determinable, Snap-on uses the implicit rate in determining the present value of lease payments. When leases do not provide an implicit rate, Snap-on uses its country specific incremental borrowing rate based on the information available at the lease commencement date, including the lease term. The operating lease ROU asset also includes any lease payments made and excludes lease incentives. Lease expense for lease payments is recognized on a straight-line basis over the lease term.

Snap-on has lease agreements with lease and non-lease components, which are generally accounted for separately. For all equipment leases, including vehicles, Snap-on accounts for the lease and non-lease components as a single lease component.

Total lease costs for 2019 consist of the following:

(Amounts in millions)		2019
Finance lease costs:		
Amortization of ROU assets	$	1.5
Interest on lease liabilities		0.5
Operating lease costs*		25.1
Total lease costs	$	27.1

* Includes short-term leases, variable lease costs and sublease income, which are immaterial.

Supplemental cash flow information related to leases in 2019 is as follows:

(Amounts in millions)		2019
Cash paid for amounts included in the measurement of lease liabilities:		
Financing cash flows from finance leases	$	2.8
Operating cash flows from finance leases		0.5
Operating cash flows from operating leases		23.5
ROU assets obtained in exchange for new lease obligations:		
Finance lease liabilities	$	1.4
Operating lease liabilities		12.5

Supplemental balance sheet information related to leases in 2019 is as follows:

(Amounts in millions)	2019
Finance leases:	
Property and equipment - gross	$ 9.2
Accumulated depreciation and amortization	(1.5)
Property and equipment - net	$ 7.7
Other accrued liabilities	$ 2.8
Other long-term liabilities	10.0
Total finance lease liabilities	$ 12.8
Operating leases:	
Operating lease right-of-use assets	$ 55.6
Other accrued liabilities	$ 19.5
Operating lease liabilities	37.5
Total operating lease liabilities	$ 57.0

Weighted-average lease terms and discount rates in 2019 are as follows:

	2019
Weighted-average remaining lease terms:	
Finance leases	4.5 years
Operating leases	3.7 years
Weighted-average discount rates:	
Finance leases	3.4%
Operating leases	2.8%

Maturities of lease liabilities as of December 28, 2019 are as follows:

(Amounts in millions)	Operating Leases	Finance Leases
Year:		
2020	$ 20.6	$ 3.2
2021	15.6	3.0
2022	10.8	2.8
2023	6.2	2.6
2024	4.1	2.0
2025 and thereafter	2.7	0.2
Total lease payments	60.0	13.8
Less: amount representing interest	(3.0)	(1.0)
Total lease liabilities	$ 57.0	$ 12.8

In 2019, Snap-on did not have any significant additional operating or finance leases that have not yet commenced.

Snap-on's future minimum lease commitments, net of sub-lease rental income, as of December 29, 2018, under Accounting Standard Codification Topic 840, the predecessor to Topic 842, are as follows:

(Amounts in millions)	Operating Leases	Capital Leases
Year:		
2019	$ 25.6	$ 3.3
2020	18.4	3.2
2021	13.9	2.9
2022	9.8	2.5
2023	4.9	2.2
2024 and thereafter	4.4	1.9
Total minimum lease payments	$ 77.0	16.0
Less: amount representing interest		(0.9)
Total present value of minimum capital lease payments		$ 15.1

Amounts included in the accompanying Consolidated Balance Sheets for the present value of minimum capital lease payments as of 2018 year end are as follows:

(Amounts in millions)	2018
Other accrued liabilities	$ 3.0
Other long-term liabilities	12.1
Total present value of minimum capital lease payments	$ 15.1

Rent expense for worldwide facilities, office equipment and vehicles, net of sub-lease rental income, was $33.0 million and $35.2 million in 2018 and 2017, respectively.

Lessor accounting: Snap-on's Financial Services business offers its customers lease financing for the lease of tools, diagnostics and equipment products and to franchisees who require financing for vehicle leases. Snap-on accounts for its financial services leases as sales-type leases. In certain circumstances, the lessee has the option to terminate the lease. In the event of the lessee's deteriorated financial condition or default, Snap-on has the right to terminate the lease. The leases contain an end-of-term purchase option that is generally insignificant and is reasonably certain to be exercised by the lessee.

The company recognizes the net investment in the lease as the present value of the lease payments not yet received plus the present value of the unguaranteed residual value, using the interest rate implicit in the lease. The difference between the undiscounted lease payments received over the lease term and the related net investment in the lease is reported as unearned finance charges. Unearned finance charges are amortized to income over the life of the contract and are included as a component of "Financial services revenue" on the accompanying Consolidated Statements of Earnings.

Sales-type leases are included in both "Finance receivables - net" and "Long-term finance receivables - net" on the accompanying Consolidated Balance Sheets, with lease terms of up to five years. In 2019 and 2018, finance receivables have future minimum lease payments, including unguaranteed residual value, of $97.5 million and $93.3 million, respectively, and unearned finance charges of $19.9 million and $18.1 million, respectively.

Sales-type leases are included in both "Contract receivables - net" and "Long-term contract receivables - net" on the accompanying Consolidated Balance Sheets, with lease terms of up to seven years. In 2019 and 2018, contract receivables have future minimum lease payments, including unguaranteed residual value, of $267.7 million and $254.2 million, respectively, and unearned finance charges of $47.6 million and $46.2 million, respectively.

Future minimum lease payments as of December 28, 2019 are as follows:

(Amounts in millions)	Lease Receivables
Year:	
2020	$ 119.1
2021	90.7
2022	64.3
2023	44.4
2024	28.4
2025 and thereafter	18.3
Total lease payments	365.2
Less: unearned finance charges	(67.5)
Net investment in leases	$ 297.7

See Note 4 for further information on finance and contract receivables.

Note 17: Other Income (Expense) – Net

"Other income (expense) – net" on the accompanying Consolidated Statements of Earnings consists of the following:

(Amounts in millions)	2019	2018	2017
Interest income	$ 1.5	$ 0.6	$ 0.3
Net foreign exchange loss	(3.6)	(3.9)	(7.0)
Net periodic pension and postretirement benefits (costs) - non-service	10.4	3.7	(0.6)
Settlement of treasury lock	—	13.3	—
Loss on early extinguishment of debt	—	(7.8)	—
Other	0.5	(1.7)	(0.5)
Total other income (expense) – net	$ 8.8	$ 4.2	$ (7.8)

Note 18: Accumulated Other Comprehensive Income (Loss)

The following is a summary of net changes in Accumulated OCI by component and net of tax for 2019 and 2018:

(Amounts in millions)	Foreign Currency Translation	Cash Flow Hedges	Defined Benefit Pension and Postretirement Plans	Total
Balance as of 2017 year end	$ (82.5)	$ 14.5	$ (261.0)	$ (329.0)
Other comprehensive loss before reclassifications	(95.4)	(0.8)	(59.0)	(155.2)
Amounts reclassified from Accumulated OCI	—	(1.5)	23.5	22.0
Net other comprehensive loss	(95.4)	(2.3)	(35.5)	(133.2)
Balance as of 2018 year end	$ (177.9)	$ 12.2	$ (296.5)	$ (462.2)
Impact of the Tax Act on Accumulated Other Comprehensive Income (ASU No. 2018-02)	—	—	(45.9)	(45.9)
Balance at beginning of 2019	(177.9)	12.2	(342.4)	(508.1)
Other comprehensive loss before reclassifications	(9.5)	—	(6.5)	(16.0)
Amounts reclassified from Accumulated OCI	—	(1.5)	17.7	16.2
Net other comprehensive income (loss)	(9.5)	(1.5)	11.2	0.2
Balance as of 2019 year end	$ (187.4)	$ 10.7	$ (331.2)	$ (507.9)

The reclassifications out of Accumulated OCI in 2019 and 2018 are as follows:

(Amounts in millions)	Amounts Reclassified from Accumulated OCI		Statement of Earnings Presentation
	2019	2018	
Gains on cash flow hedges:			
Treasury locks	$ 1.5	$ 1.5	Interest expense
Income tax expense	—	—	Income tax expense
Net of tax	1.5	1.5	
Amortization of net unrecognized losses and prior service credits	(23.5)	(31.1)	See footnote below*
Income tax benefit	5.8	7.6	Income tax expense
Net of tax	(17.7)	(23.5)	
Total reclassifications for the period, net of tax	$ (16.2)	$ (22.0)	

* These Accumulated OCI components are included in the computation of net periodic pension and postretirement health care costs; see Note 11 and Note 12 for further information.

Note 19: Segments

Snap-on's business segments are based on the organization structure used by management for making operating and investment decisions and for assessing performance. Snap-on's reportable business segments are: (i) the Commercial & Industrial Group; (ii) the Snap-on Tools Group; (iii) the Repair Systems & Information Group; and (iv) Financial Services. The Commercial & Industrial Group consists of business operations serving a broad range of industrial and commercial customers worldwide, including customers in the aerospace, natural resources, government, power generation, transportation and technical education market segments (collectively, "critical industries"), primarily through direct and distributor channels. The Snap-on Tools Group consists of business operations primarily serving vehicle service and repair technicians through the company's worldwide mobile tool distribution channel. The Repair Systems & Information Group consists of business operations serving other professional vehicle repair customers worldwide, primarily owners and managers of independent repair shops and OEM dealerships, through direct and distributor channels. Financial Services consists of the business operations of Snap-on's finance subsidiaries.

Snap-on evaluates the performance of its operating segments based on segment revenues, including both external and intersegment net sales, and segment operating earnings. Snap-on accounts for intersegment sales and transfers based primarily on standard costs with reasonable mark-ups established between the segments. Identifiable assets by segment are those assets used in the respective reportable segment's operations. Corporate assets consist of cash and cash equivalents (excluding cash held at Financial Services), deferred income taxes and certain other assets. Intersegment amounts are eliminated to arrive at Snap-on's consolidated financial results.

Snap-on does not have any single customer or government that represents 10% or more of its revenues in any of the indicated periods.

Financial Data by Segment:

(Amounts in millions)	2019	2018	2017
Net sales:			
Commercial & Industrial Group	$ 1,345.7	$ 1,343.3	$ 1,265.0
Snap-on Tools Group	1,612.9	1,613.8	1,625.1
Repair Systems & Information Group	1,334.5	1,334.4	1,347.2
Segment net sales	4,293.1	4,291.5	4,237.3
Intersegment eliminations	(563.1)	(550.8)	(550.4)
Total net sales	3,730.0	3,740.7	3,686.9
Financial Services revenue	337.7	329.7	313.4
Total revenues	$ 4,067.7	$ 4,070.4	$ 4,000.3
Operating earnings:			
Commercial & Industrial Group	$ 188.7	$ 199.3	$ 186.5
Snap-on Tools Group	245.8	264.2	274.7
Repair Systems & Information Group	342.7	342.6	335.3
Financial Services	245.9	230.1	217.5
Segment operating earnings	1,023.1	1,036.2	1,014.0
Corporate	(60.8)	(80.1)	(131.9)
Operating earnings	962.3	956.1	882.1
Interest expense	(49.0)	(50.4)	(52.4)
Other income (expense) – net	8.8	4.2	(7.8)
Earnings before income taxes and equity earnings	$ 922.1	$ 909.9	$ 821.9

(Amounts in millions)	2019	2018
Assets:		
Commercial & Industrial Group	$ 1,138.8	$ 1,087.9
Snap-on Tools Group	827.4	752.7
Repair Systems & Information Group	1,381.9	1,306.3
Financial Services	2,104.0	2,039.6
Total assets from reportable segments	5,452.1	5,186.5
Corporate	303.1	249.2
Elimination of intersegment receivables	(61.7)	(62.6)
Total assets	$ 5,693.5	$ 5,373.1

Financial Data by Segment (continued):

(Amounts in millions)	2019	2018	2017
Capital expenditures:			
Commercial & Industrial Group	$ 30.1	$ 21.5	$ 22.6
Snap-on Tools Group	42.7	46.0	40.1
Repair Systems & Information Group	22.7	19.7	13.4
Financial Services	0.8	0.5	1.2
Total from reportable segments	96.3	87.7	77.3
Corporate	3.1	3.2	4.7
Total capital expenditures	$ 99.4	$ 90.9	$ 82.0
Depreciation and amortization:			
Commercial & Industrial Group	$ 23.5	$ 23.6	$ 22.8
Snap-on Tools Group	31.7	29.9	29.1
Repair Systems & Information Group	33.0	36.7	37.8
Financial Services	0.7	0.8	0.6
Total from reportable segments	88.9	91.0	90.3
Corporate	3.5	3.1	2.9
Total depreciation and amortization	$ 92.4	$ 94.1	$ 93.2
Revenues by geographic region:*			
United States	$ 2,794.0	$ 2,727.9	$ 2,703.3
Europe	730.3	784.7	748.8
All other	543.4	557.8	548.2
Total revenues	$ 4,067.7	$ 4,070.4	$ 4,000.3

(Amounts in millions)	2019	2018
Long-lived assets:**		
United States	$ 1,112.3	$ 1,091.2
Sweden	218.7	227.4
All other	348.2	311.6
Total long-lived assets	$ 1,679.2	$ 1,630.2

* Revenues are attributed to countries based on origin of the sale.

** Long-lived assets consist of Property and equipment - net, Goodwill, and Other intangibles - net.

Products and Services: Snap-on derives net sales from a broad line of products and complementary services that are grouped into three categories: (i) tools; (ii) diagnostics, information and management systems; and (iii) equipment. The tools product category includes hand tools, power tools, tool storage products and other similar products. The diagnostics, information and management systems product category includes handheld and PC-based diagnostic products, service and repair information products, diagnostic software solutions, electronic parts catalogs, business management systems and services, point-of-sale systems, integrated systems for vehicle service shops, OEM purchasing facilitation services, and warranty management systems and analytics to help OEM dealerships manage and track performance. The equipment product category includes solutions for the service of vehicles and industrial equipment. Snap-on supports the sale of its diagnostics and vehicle service shop equipment by offering training programs as well as after-sales service support to its customers. Through its financial services businesses, Snap-on also derives revenue from various financing programs designed to facilitate the sales of its products and support its franchise business. Further product line information is not presented as it is not practicable to do so.

The following table shows the consolidated net sales and revenues of these product groups in the last three years:

(Amounts in millions)	2019	2018	2017
Net sales:			
Tools	$ 2,017.5	$ 2,021.2	$ 1,946.7
Diagnostics, information and management systems	827.5	797.9	800.4
Equipment	885.0	921.6	939.8
Total net sales	3,730.0	3,740.7	3,686.9
Financial services revenue	337.7	329.7	313.4
Total revenues	$ 4,067.7	$ 4,070.4	$ 4,000.3

Note 20: Quarterly Data (unaudited)

(Amounts in millions, except per share data)	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Total
2019					
Net sales	$ 921.7	$ 951.3	$ 901.8	$ 955.2	$ 3,730.0
Gross profit	471.6	473.8	448.1	450.5	1,844.0
Financial services revenue	85.6	84.1	84.1	83.9	337.7
Financial services expenses	(23.5)	(23.5)	(23.1)	(21.7)	(91.8)
Net earnings	182.1	184.9	169.2	175.0	711.2
Net earnings attributable to Snap-on Incorporated	177.9	180.4	164.6	170.6	693.5
Earnings per share – basic	3.21	3.27	2.99	3.12	12.59
Earnings per share – diluted	3.16	3.22	2.96	3.08	12.41
Cash dividends paid per share	0.95	0.95	0.95	1.08	3.93

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Total
2018					
Net sales	$ 935.5	$ 954.6	$ 898.1	$ 952.5	$ 3,740.7
Gross profit	471.6	487.1	453.9	457.4	1,870.0
Financial services revenue	83.0	82.0	82.0	82.7	329.7
Financial services expenses	(26.1)	(24.2)	(22.7)	(26.6)	(99.6)
Net earnings	166.8	182.7	167.4	179.3	696.2
Net earnings attributable to Snap-on Incorporated	163.0	178.7	163.2	175.0	679.9
Earnings per share – basic	2.87	3.17	2.90	3.14	12.08
Earnings per share – diluted	2.82	3.12	2.85	3.09	11.87
Cash dividends paid per share	0.82	0.82	0.82	0.95	3.41

SIGNATURES

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

SNAP-ON INCORPORATED

By: /s/ Nicholas T. Pinchuk — Date: February 13, 2020

Nicholas T. Pinchuk, Chairman, President
and Chief Executive Officer

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

/s/ Nicholas T. Pinchuk — Date: February 13, 2020

Nicholas T. Pinchuk, Chairman, President
and Chief Executive Officer

/s/ Aldo J. Pagliari — Date: February 13, 2020

Aldo J. Pagliari, Principal Financial Officer, Senior
Vice President – Finance and Chief Financial Officer

/s/ Richard K. Strege — Date: February 13, 2020

Richard K. Strege, Principal Accounting Officer,
Vice President and Controller

SIGNATURES

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

By:	/s/ David C. Adams	Date: February 13, 2020
	David C. Adams, Director	
By:	/s/ Karen L. Daniel	Date: February 13, 2020
	Karen L. Daniel, Director	
By:	/s/ Ruth Ann M. Gillis	Date: February 13, 2020
	Ruth Ann M. Gillis, Director	
By:	/s/ James P. Holden	Date: February 13, 2020
	James P. Holden, Director	
By:	/s/ Nathan J. Jones	Date: February 13, 2020
	Nathan J. Jones, Director	
By:	/s/ Henry W. Knueppel	Date: February 13, 2020
	Henry W. Knueppel, Director	
By:	/s/ W. Dudley Lehman	Date: February 13, 2020
	W. Dudley Lehman, Director	
By:	/s/ Nicholas T. Pinchuk	Date: February 13, 2020
	Nicholas T. Pinchuk, Director	
By:	/s/ Gregg M. Sherrill	Date: February 13, 2020
	Gregg M. Sherrill, Director	
By:	/s/ Donald J. Stebbins	Date: February 13, 2020
	Donald J. Stebbins, Director	

EXHIBIT 21

SUBSIDIARIES OF THE CORPORATION
As of December 28, 2019
(Does not include inactive subsidiaries)

Name	State or other jurisdiction of organization
Bahco Bisov Svenska AB	Sweden
Blackhawk S.A.S.	France
Bonita IP LLC	Delaware
BTC Global Limited	United Kingdom
BTC Solutions Limited	United Kingdom
Car-O-Liner APAC Distribution Center Co., Ltd.	Thailand
Car-O-Liner (Beijing) Co., Ltd.	China
Car-O-Liner B.V.	Netherlands
Car-O-Liner Commercial AB	Sweden
Car-O-Liner Company	Delaware
Car-O-Liner Deutschland GmbH	Germany
Car-O-Liner Group AB	Sweden
Car-O-Liner Holding AB	Sweden
Car-O-Liner Holding (Thailand) Co., Ltd.	Thailand
Car-O-Liner India Private Limited	India
Car-O-Liner KB	Sweden
Car-O-Liner MEA (FZE)	United Arab Emirates
Car-O-Liner Norge AS	Norway
Car-O-Liner SAS	France
Car-O-Liner (Thailand) Co., Ltd.	Thailand
Car-O-Liner (UK) Limited	United Kingdom
Challenger Lifts, Inc.	Kentucky
Creditcorp SPC, LLC	Wisconsin
Cognitran Inc.	Michigan
Cognitran Limited	United Kingdom
Cognitran Sp z o.o.	Poland
Deville SA	France
IDSC Holdings LLC (Snap-on Industrial)	Wisconsin
JCSC SNA Europe Industries Bisov	Belarus
Josam Richttecknik GmbH	Germany
Kapman AB	Sweden
Mitchell Repair Information Company, LLC	Delaware
New Creditcorp SPC, LLC	Delaware
Norbar Torque Tools (Australia) Pty Ltd	Australia
Norbar Torque Tools (China) Limited	United Kingdom
Norbar Torque Tools (NZ) Limited	New Zealand
Norbar Torque Tools (Shanghai) Ltd	China
Norbar Torque Tools Holdings Limited	United Kingdom
Norbar Torque Tools India Private Limited	India
Norbar Torque Tools Limited	United Kingdom
Norbar Torque Tools Private Limited	Singapore
Norbar Torque Tools, Inc.	Ohio
P-Alignment 2012 AB	Sweden

Name	State or other jurisdiction of organization
Power Hawk Technologies, Inc.	Delaware
Pro-Cut International, LLC	Delaware
Property Holdings, LLC	Wisconsin
Ryeson Corporation (d/b/a Sturtevant Richmont)	Illinois
SN SecureCorp Insurance Malta Limited	Malta
SN SecureCorp Sales Limited	United Kingdom
SNA-E (Argentina) S.R.L.	Argentina
SNA-E Chile Ltda.	Chile
SNA E Endustriyel Mamuller Ticaret Limited Sirketi	Turkey
SNA Europe	France
SNA Europe (Benelux) B.V.	Netherlands
SNA Europe [Czech Republic] s.r.o.	Czech Republic
SNA Europe (Denmark) A/S	Denmark
SNA Europe (Finland) Oy	Finland
SNA Europe (France)	France
SNA Europe Holdings AB	Sweden
SNA Europe Holdings B.V.	Netherlands
SNA Europe [Industries], Lda.	Portugal
SNA Europe (Industries) AB	Sweden
SNA Europe [Italia] SpA	Italy
SNA Europe (Norway) AS	Norway
SNA Europe - Poland Sp. z o.o.	Poland
SNA Europe [RUS] LLC	Russia
SNA Europe (Services) AB	Sweden
SNA Europe [Slovakia], s.r.o.	Slovakia
SNA Europe (Sweden) AB	Sweden
SNA Europe Iberia Holdings, S.L.	Spain
SNA Europe Industries Iberia, S.A.	Spain
SNA Germany GmbH	Germany
SNA Investment Holding UK Limited Partnership	United Kingdom
SNA Solutions UK Limited	United Kingdom
SNA Tools Belgium BVBA	Belgium
Snap-on (Thailand) Company Limited	Thailand
Snap-on Africa (Proprietary) Limited	South Africa
Snap-on Asia Manufacturing (Kunshan) Co. Ltd.	China
Snap-on Asia Manufacturing (Zhejiang) Co., Ltd.	China
Snap-on Asia Pacific Holding Pte. Ltd.	Singapore
Snap-on Business Solutions Inc.	Delaware
Snap-on Business Solutions India Private Limited	India
Snap-on Business Solutions Limited	United Kingdom
Snap-on Business Solutions Japan Company	Japan
Snap-on Business Solutions GmbH	Germany
Snap-on Business Solutions SRL	Italy
Snap-on Business Solutions SARL	France
Snap-on Business Solutions SL	Spain
Snap-on Business Solutions (Syncata) Inc.	California
Snap-on Capital Corp.	Delaware
Snap-on Climate Solutions S.r.l.	Italy

Name	State or other jurisdiction of organization
Snap-on Credit Canada Ltd.	Ontario
Snap-on Credit LLC	Delaware
Snap-on do Brasil Comercio e Industria Ltda.	Brazil
Snap-on Equipment Austria GmbH	Austria
Snap-on Equipment Europe Limited	Ireland
Snap-on Equipment France	France
Snap-on Equipment GmbH	Germany
Snap-on Equipment Holdings B.V.	Netherlands
Snap-on Equipment Hungary Kft.	Hungary
Snap-on Equipment Inc.	Delaware
Snap-on Equipment Ltd.	United Kingdom
Snap-on Equipment S.r.l.	Italy
Snap-on Europe Holding B.V.	Netherlands
Snap-on Finance B.V.	Netherlands
Snap-on Finance UK Limited	United Kingdom
Snap-on Global Holdings, Inc.	Delaware
Snap-on Holdings AB	Sweden
Snap-on Illinois Holdings LLC	Illinois
Snap-on Illinois Services LLC	Illinois
Snap-on International Middle East FZE	United Arab Emirates
Snap-on Investment Limited	United Kingdom
Snap-on Lendco LLC	Wisconsin
Snap-on Lendco Singapore Pte. Ltd.	Singapore
Snap-on Logistics Company	Wisconsin
Snap-on Malta Limited	Malta
Snap-on Power Tools Inc.	Iowa
Snap-on SecureCorp Insurance Company Ltd.	Bermuda
Snap-on SecureCorp, Inc.	Wisconsin
Snap-on Service GmbH	Germany
Snap-on Tools (Australia) Pty. Ltd.	Australia
Snap-on Tools (New Zealand) Limited	New Zealand
Snap-on Tools B.V.	Netherlands
Snap-on Tools China Trading (Shanghai) Co. Ltd.	China
Snap-on Tools Company LLC	Delaware
Snap-on Tools Hong Kong Limited	Hong Kong
Snap-on Tools International LLC	Delaware
Snap-on Tools Italia S.r.l.	Italy
Snap-on Tools Japan K.K.	Japan
Snap-on Tools Korea Ltd.	Korea
Snap-on Tools of Canada Co.	Canada
Snap-on Tools Private Limited	India
Snap-on Tools Singapore Pte Ltd	Singapore
Snap-on Trading (Shanghai) Co., Ltd.	China
Snap-on U.K. Holdings Limited	United Kingdom
Snap-on/Sun de Mexico, S.A. de C.V.	Mexico

EXHIBIT 23

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement Nos. 33-37924, 333-21285, and 333-228730 on Form S-3 and Registration Statement Nos. 33-57898, 33-58939, 333-21277, 333-62098, 333-142412, 333-91712, 333-177794, 333-177795 and 333-208479 on Form S-8 of our reports dated February 13, 2020, relating to the consolidated financial statements of Snap-on Incorporated, and the effectiveness of Snap-on Incorporated's internal control over financial reporting, appearing in this Annual Report on Form 10-K of Snap-on Incorporated for the year ended December 28, 2019.

/s/ DELOITTE & TOUCHE LLP
Milwaukee, Wisconsin
February 13, 2020

EXHIBIT 31.1

Certification of the Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Nicholas T. Pinchuk, certify that:

1. I have reviewed this annual report on Form 10-K of Snap-on Incorporated;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 13, 2020

/s/ Nicholas T. Pinchuk

Nicholas T. Pinchuk
Chief Executive Officer

EXHIBIT 31.2

Certification of the Principal Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Aldo J. Pagliari, certify that:

1. I have reviewed this annual report on Form 10-K of Snap-on Incorporated;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 13, 2020

/s/ Aldo J. Pagliari

Aldo J. Pagliari
Principal Financial Officer

EXHIBIT 32.1

Certification of Chief Executive Officer
Pursuant to 18 U.S.C. Section 1350,
As Adopted Pursuant to
Section 906 of the Sarbanes-Oxley Act of 2002

In connection with the Annual Report of Snap-on Incorporated (the "Company") on Form 10-K for the period ended December 28, 2019, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), Nicholas T. Pinchuk as Chief Executive Officer of the Company, hereby certifies, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, to the best of his knowledge, that:

(1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Nicholas T. Pinchuk
Nicholas T. Pinchuk
Chief Executive Officer
February 13, 2020

EXHIBIT 32.2

Certification of Principal Financial Officer
Pursuant to 18 U.S.C. Section 1350,
As Adopted Pursuant to
Section 906 of the Sarbanes-Oxley Act of 2002

In connection with the Annual Report of Snap-on Incorporated (the "Company") on Form 10-K for the period ended December 28, 2019, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), Aldo J. Pagliari as Principal Financial Officer of the Company, hereby certifies, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, to the best of his knowledge, that:

(1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Aldo J. Pagliari

Aldo J. Pagliari
Principal Financial Officer
February 13, 2020

BOARD OF DIRECTORS

NICHOLAS T. PINCHUK
Chairman of the Board
and Chief Executive Officer
Snap-on Incorporated
Director since 2007

DAVID C. ADAMS (C)
Chairman of the Board
and Chief Executive Officer
Curtiss-Wright Corporation
Director since 2016

KAREN L. DANIEL (B)
Retired Division President
and Chief Financial Officer
Black & Veatch Corporation
Director since 2005

RUTH ANN M. GILLIS (A)
Retired Executive Vice
President and Chief
Administrative Officer
Exelon Corporation
Director since 2014

JAMES P. HOLDEN (B)
Lead Director
Retired President and
Chief Executive Officer
DaimlerChrysler Corporation
Director since 2007

NATHAN J. JONES (A)*
Retired President,
Worldwide Commercial
& Consumer Equipment Division
Deere & Company
Director since 2008

HENRY W. KNUEPPEL (C)*
Retired Chairman of the Board
and Chief Executive Officer
Regal Beloit Corporation
Director since 2011

W. DUDLEY LEHMAN (C)
Retired Group President
Kimberly-Clark Corporation
Director since 2003

GREGG M. SHERRILL (B)*
Chairman of the Board,
Retired Chief Executive Officer
Tenneco Inc.
Director since 2010

DONALD J. STEBBINS (A)
Retired President and
Chief Executive Officer
Superior Industries
International, Inc.
Director since 2015

Board Committees:
(A) Audit Committee
(B) Organization and Executive Compensation Committee
(C) Corporate Governance and Nominating Committee
** Denotes Chair*

MANAGEMENT TEAM

EUGENIO AMADOR
President –
Equipment

GOVIND K. ARORA
Vice President –
Worldwide Strategic
Sourcing

JESUS ARREGUI
Senior Vice President
and President –
Commercial Group

ANUP R. BANERJEE
Senior Vice President –
Human Resources and
Chief Development Officer

STEVEN K. BARTELS
Vice President –
Corporate Tax

MARY E. BAUERSCHMIDT
Vice President –
Human Resources

SAMUEL E. BOTTUM
Vice President and
Chief Marketing Officer

IAIN BOYD
Vice President –
Operations Development

BENNETT L. BRENTON
Vice President –
Innovation

JOSEPH J. BURGER
President –
Snap-on Credit

TIMOTHY L. CHAMBERS
Senior Vice President
and President –
Snap-on Tools Group

RAUL COLON
Vice President –
Corporate Safety
and Environment

DAVID ELLINGEN
President –
Diagnostics and Mitchell 1

MICHAEL G. GENTILE
President –
Operations and
Product Management
Snap-on Tools Group

JACOB L. GUNIA
Director –
Rapid Continuous
Improvement

ROBERT J. HAMILTON
Vice President –
Finance
Snap-on Tools Group

GARY S. HENNING
Vice President –
Manufacturing Development

DAVID T. HIETPAS
Vice President and
General Manager –
Specialty Tools

JEFFREY W. HOWE
Vice President –
North American Sales
and Franchising
Snap-on Tools Group

JEFFREY F. KOSTRZEWA
Vice President
and Treasurer

JUNE C. LEMERAND
Vice President and
Chief Information Officer

MANUEL MACEDO
Vice President –
Operations
SNA Europe

RICHARD T. MILLER
Vice President,
General Counsel
and Secretary

JAMES NG
President –
Snap-on Asia Pacific

BENNY OH
Chairman –
Snap-on Asia Pacific

ALDO J. PAGLIARI
Senior Vice President –
Finance and Chief
Financial Officer

NICHOLAS T. PINCHUK
Chairman and
Chief Executive Officer

CHRISTOPHER H. POTTER
President –
Power Tools

RICHARD K. STREGE
Vice President
and Controller

IRENE S. SUDAC
Vice President –
Financial Services

KEVIN L. THATCHER
Vice President –
Business Development

DAVID L. THOMPSON
Vice President – Finance
Repair Systems &
Information Group

SARA M. VERBSKY
Vice President –
Investor Relations

THOMAS J. WARD
Senior Vice President
and President –
Repair Systems &
Information Group

MARIAN T. WELLS
President –
SNA Europe

BART A. WIGNALL
President –
Industrial

JOHN A. WOLF
President –
OEM Solutions

BARRIE YOUNG
Vice President –
International Sales
and Franchising
Snap-on Tools Group

© 2020 Snap-on Incorporated;
All rights reserved

Snap-on as well as other marks are trademarks, registered in the United States and other countries, of Snap-on Incorporated. All other marks are marks of their respective holders.

100
Snap-on
Snap-on
SNAP-ON INCORPORATED
2801 80TH STREET
KENOSHA, WI 53143 U.S.A.
262.656.5200 | SNAPON.COM