VOLVO
VOLVO GROUP

VOLVO GROUP
ANNUAL AND SUSTAINABILITY REPORT
2020

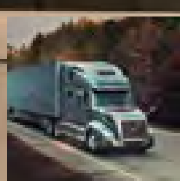
SHAPING THE FUTURE OF TRANSPORTATION AND INFRASTRUCTURE

OUR CUSTOMERS MAKE SOCIETIES WORK

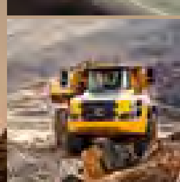
The Volvo Group's mission is to drive prosperity through transport and infrastructure solutions. We continuously develop our products and services to increase the value for our customers, to support sustainable societies and to promote the well-being and safety of people.

Driving prosperity socially, environmentally and financially means striving for transport and infrastructure solutions that are 100% safe, 100% fossil-free and 100% more productive.

The Volvo Group's products and services contribute to much of what we all expect of a well-functioning and prosperous society, since our trucks, buses, construction equipment, power solutions for marine and industrial applications, financing and services are involved in many activities that most of us rely on every day. The majority of the Volvo Group's customers are companies within the transportation or infrastructure industries. The reliability and productivity of our products and services are important, and in many cases crucial, to their success and profitability.

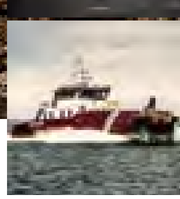


ON THE ROAD
Our products and services help ensure that people have food on the table, can travel to their destination and have roads to drive on. They also deliver industrial goods to keep production plants running.



OFF ROAD
Engines, machines and vehicles from the Volvo Group are used to mine iron ore, transport timber or haul stone and rock. They also power vital irrigation installations all over the world, so that farmers can grow their crops.

IN THE CITY
Our buses take people to work or school, trucks collect rubbish and gensets are used as backup power. Our products are also used to build housing as well as industrial and sports facilities.



AT SEA
Our products and services are there, regardless of whether someone is at work on a ship, traveling to work on a ferry, on holiday in a pleasure boat or needs urgent help from the sea rescue services.


VOLVO

A GLOBAL GROUP WITH STRONG POSITIONS

The Volvo Group offers transport- and infrastructure solutions with trucks, buses, construction equipment, power solutions for marine and industrial applications, financing and services that increase our customers' uptime and productivity. Founded in 1927, the Volvo Group is committed to shaping the future landscape of sustainable transport and infrastructure solutions. The Volvo Group is headquartered in Gothenburg, Sweden, employs almost 100,000 people and serves customers in more than 190 markets.

Competitive products
The Volvo Group's products contribute to efficient transport and infrastructure solutions and provide our customers with uptime. We drive the development of electrified vehicles and machines as well as automated solutions for the benefit of customers, society and the environment. Sales of vehicles and machines build a population of products that drive spare parts sales and service revenue.

World-class services
In addition to vehicles and machines, our offering includes various types of services such as financing, insurance, rentals, spare parts, repairs, preventive maintenance, service agreements and assistance services. The range and flexibility of the offering means that solutions can be tailor-made for each customer to maximize uptime and productivity. The service business contributes to balancing the fluctuations in the sales of new products and improving profitability over the business cycle. Growing the service business is an area of priority.

Strong positions globally
Thanks to competitive product programs, strong dealers with extensive service networks and increasingly more complete offerings, the Volvo Group has established leading positions globally. We are one of the world's largest manufacturers of heavy-duty trucks, construction equipment, buses and heavy-duty combustion engines as well as a leading supplier of marine and industrial engines. These positions provide for economies of scale in product development, production, purchasing and financial services.

Strong brands
The Volvo Group's brand portfolio consists of Volvo, Volvo Penta, UD Trucks, Terex Trucks, Renault Trucks, Prevost, Nova Bus, Mack and Arquus. We partner in alliances and joint ventures with the SDLG, Eicher and Dongfeng brands. By offering products and services under different brands, we address many different customer and market segments in mature as well as growth markets.

Partnerships and collaborations with leading companies
New technologies are developing at a faster pace than ever before. Staying at the forefront is vital to be successful, and that is why we work in collaborations and partnerships with other leading companies. We have partnered with Samsung SDI regarding the development of battery packs for our trucks. We are in the process of establishing a joint venture with Daimler Truck with the intention to develop, produce and commercialize fuel cell systems for heavy-duty vehicle applications and other use cases. And we have an agreement with NVIDIA to jointly develop the decision-making system of autonomous commercial vehicles and machines.

VOLVO GROUP MARKET SHARES IN HEAVY-DUTY TRUCKS

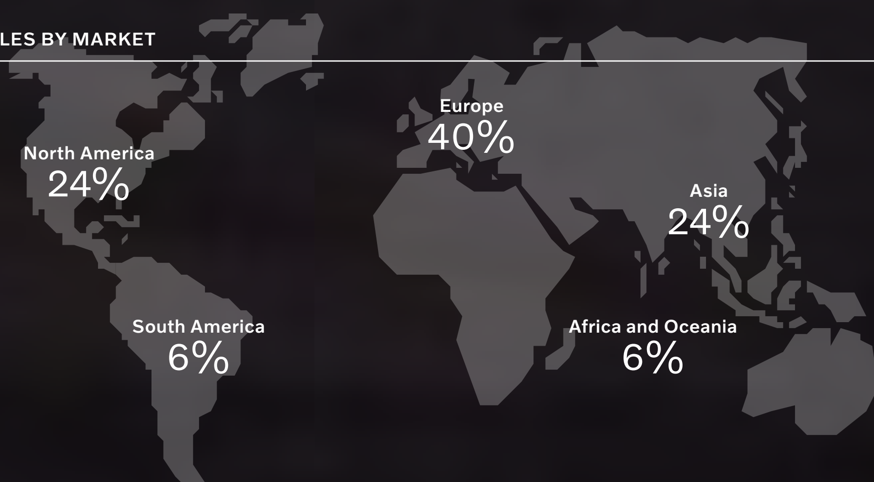
North America
16.3%

Europe
25.0%

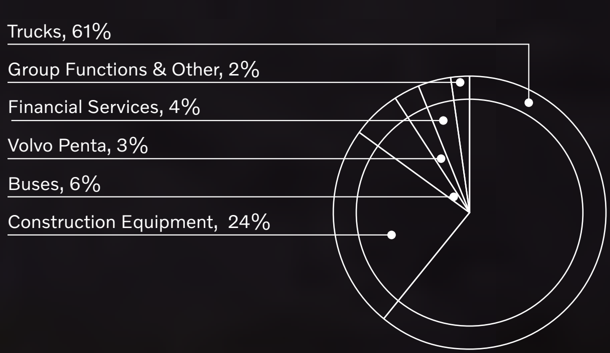
Brazil
22.2%

Japan
18.9%

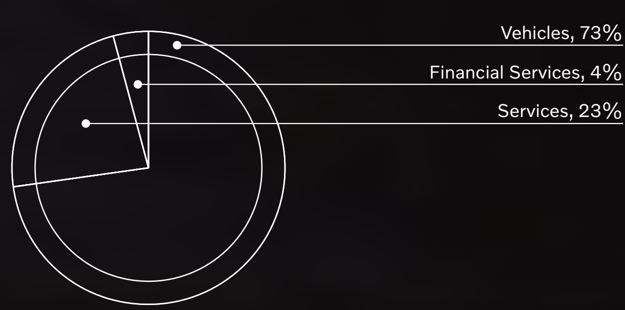
SHARE OF NET SALES BY MARKET

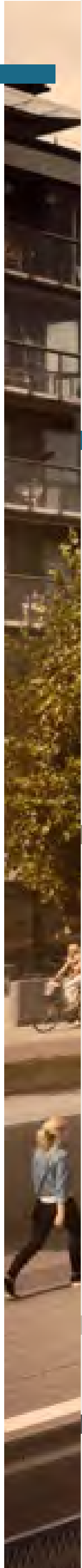


SHARE OF NET SALES BY SEGMENT



SHARE OF NET SALES BY REVENUE TYPE





CONTENT

The Volvo Group's formal financial reports are presented on pages 40–149, 188–190 and 194–196 and have been audited by the company's auditors. For information on which pages constitute the Volvo Group's Statutory Sustainability Report, please see page 76.

Sustainability information can be found integrated in the Group overview on pages 6–39, in the Sustainability Notes on pages 150–171 and on page 175 and 182 in the Corporate Governance Report.

On the cover: After the successful introduction of serial produced electric trucks for urban transport and refuse collection, Volvo Trucks has deployed fully electric heavy-duty construction trucks along with charging solutions for test in real operations with customer Swerock.

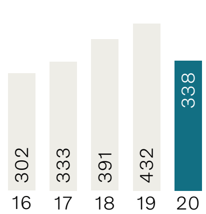
2020 IN BRIEF

GOOD PROFITABILITY DESPITE IMPACT FROM COVID-19

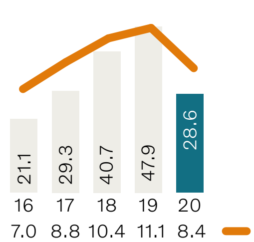
- Net sales decreased by 22% to SEK 338 billion (432). Currency-adjusted net sales decreased by 18%.
- Adjusted operating income[1] amounted to SEK 28,564 M (47,910), corresponding to an adjusted operating margin of 8.4% (11.1).
- Operating cash flow of SEK 18.5 billion (38.3) in the Industrial Operations.
- Strong financial position with net financial assets of SEK 74.7 billion in the Industrial Operations, excluding provisions for post-employment benefits and lease liabilities.
- The Board of Directors proposes an ordinary dividend of SEK 6.00 per share and an extra dividend of SEK 9.00 per share.
- Agreement with Isuzu Motors regarding the formation of a strategic alliance, which includes the divestment of UD Trucks to Isuzu Motors.
- Agreement with Daimler Truck AG for fuel-cell joint venture.

KEY RATIOS	**2020**	2019
Net sales, SEK M	338,446	431,980
Adjusted operating income[1], SEK M	28,564	47,910
Adjusted operating margin, %	8.4	11.1
Operating income, SEK M	27,484	49,531
Operating margin, %	8.1	11.5
Income after financial items, SEK M	25,917	46,832
Income for the period, SEK M	20,074	36,495
Diluted earnings per share, SEK	9.50	17.64
Dividend per share, SEK	15.00[2]	0
Operating cash flow, Industrial Operations, SEK M	18,545	38,309
Net financial position excl. provisions for post-employment benefits and lease liabilities, Industrial Operations, SEK bn	74.7	62.6
Return on capital employed in Industrial Operations, %	14.7	28.4
Return on shareholders' equity, %	13.8	27.0
Total number of employees	96,194	103,985
Share of women, %	19	19
Share of women, presidents and other senior executives, %	26	26
Energy use per net sales, Industrial Operations, MWh/SEK M	5.6	5.1
Total CO_2 emissions per net sales, Industrial Operations, tons/SEK M (scope 1 & 2)	0.8	0.8
Share of direct material purchasing spend from suppliers having made a CSR self-assessment, %	95	92

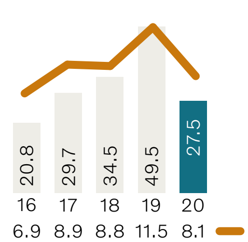
Net sales
SEK bn



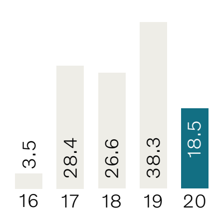
Adjusted operating income[1] SEK bn
Adjusted operating margin %



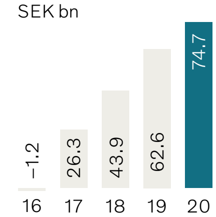
Operating income
SEK bn
Operating margin
%



Operating cash flow Industrial Operations
SEK bn



Net financial position excl. post-employment benefits and lease liabilities Industrial Operations
SEK bn



1 For more information on adjusted operating income, please see Key Ratios on page 194.
2 Proposed by the Board of Directors. SEK 6.00 per share in ordinary dividend and SEK 9.00 per share in extra dividend.
Unless otherwise stated, all comparisons refer to the same period or the same date of the preceding year.

CEO COMMENTS

A YEAR WITH MANY CHALLENGES

In 2020, the global pandemic presented us with challenges unprecedented in modern times. Together with business partners and suppliers, we supported our customers through all stages of the crisis. We handled dramatic fluctuations in demand while taking decisive steps forward towards tomorrow's fossil-free transport system.

We demonstrated that we have significantly improved our volume and cost flexibility, which were crucial factors behind our earnings resilience in 2020. Despite a loss of almost SEK 100 billion in revenues, we were able to deliver an adjusted operating income of SEK 28.6 billion with a margin of 8.4%. I would like to thank all my colleagues and our business partners for their fantastic efforts in very difficult circumstances.

After several years of high activity levels, we entered 2020 well prepared to handle lower demand, but no one could have foreseen a situation where, within a few days, we stopped large parts of our global production system and were forced to temporarily lay off tens of thousands of employees for several weeks due to the global Covid-19 pandemic.

With health and safety as the highest priority, we focused on our colleagues and customers, on our cash flow and our costs. Thanks to the great commitment of our employees and business partners, we were able to help our customers keep their businesses running, which in many cases are so crucial for society to function, such as securing food and medical supplies and other socially critical activities. At the same time, we reduced other activities to a minimum to create flexibility and room to maneuver.

When it then became possible to restart production, we worked closely with our suppliers to keep pace with the recovery in demand. The way we have handled – and continue to handle – this crisis has made me even more convinced of the power that exists in the Volvo Group to both cope with and drive change. We have shown great volume flexibility, which has been possible thanks to the great competence and the fantastic commitment of colleagues all over the world and a good collaboration with our business partners. The crisis has also shown the importance of being able to act quickly, dare to make decisions and take responsibility locally and regionally. We will continue our path of decentralization, so that those closest to our customers and other partners in the value chain also have a mandate to take the right initiatives and decisions.

In our truck business, we could see that our customers' activity levels recovered gradually during the summer when the first wave of restrictions was eased to later in the year return to about the same level as in 2019 in most markets. We first noted a recovery in the service business when the utilization of customer fleets returned, which contributed to increased optimism among customers and was then followed by an increase in demand for new trucks. In total, this meant that net sales in the truck business amounted to SEK 208 billion (277) with an adjusted operating margin of 8.3% (11.4).

Construction activity also gradually improved in most markets after the closures in the spring. During the year we continued to strengthen our position with increased market shares in China, the largest market in the world that had very good growth during the year. Volvo CE's net sales ended at SEK 81 billion (89). The adjusted operating margin was 12.4% (13.4).

Volvo Buses was hit hard by the effects of the pandemic. Restrictions meant that the coach business basically stopped completely in all major markets. City bus operations held up better, but net sales for 2020 decreased to SEK 20 billion (31) with an adjusted operating margin of –2.2% (4.3).

Volvo Penta continued to be successful thanks to its innovative power and ability to take advantage of the Group's technology. Volvo Penta reached net sales of SEK 12 billion (13) and an adjusted operating margin of 12.2% (14.1).

The importance of our customer financing operations in Volvo Financial Services is particularly clear in difficult times. Proactive work to support customers meant that the vast majority were able to get through the most difficult months during the pandemic and that we were able to keep credit losses down. When activity in the economies increased again, our customers' ability to pay gradually improved. Despite a challenging year, VFS generated an adjusted operating income of SEK 1,606 M (2,766) and a return on equity of 8.3% (15.0).

Throughout the year, we worked to adjust our activity level, and during the second half of the year in particular, we also focused on converting temporary cost savings into structural measures, to ensure that we have good room for maneuver in a time that is still characterized by great uncertainty. This has meant difficult decisions and that colleagues unfortunately had to leave the Group. I would like to thank our labor representatives for a constructive dialogue in this work.

In total, the Volvo Group made an operating income of SEK 27.5 billion and the operating cash flow in the Industrial Operations amounted to 18.5 billion. We have a strong financial position, which makes it possible for us to both invest in our future and return capital to our shareholders. The Board of Directors proposes an ordinary dividend of SEK 6.00 per share and an extra dividend of SEK 9.00 per share.

Although uncertainty is still considerable in the short term, there is no doubt that demand for both transport and infrastructure will continue to grow in the long term. It is a development driven by factors such as population growth, urbanization, a growing affluent middle class and increasing e-commerce. It is also clear that we need to meet that demand with sustainable solutions. Our long-term ambition is to offer transport and infrastructure solutions that are 100% safe, 100% fossil-free and 100% more efficient than today. Safer because we always put people at the center, and we cannot accept a situation where more than one million people die every year in traffic accidents. Fossil-free because climate change is the biggest challenge of our time. More efficient because we can both help our customers save money and at the same time reduce the environmental impact by improving the efficiency of our transport and logistics systems. It is by delivering on this clear direction that the Volvo Group will continue to be successful.

Sustainability in a broad perspective is an integral part of our business. This applies to what business we do and in what way we conduct our business. During the year, we further strengthened our work with the principles of the UN Global Compact regarding business ethics, human rights, labor law and the environment. We have once again emphasized our commitment to the climate agreement adopted in Paris, and in order to be transparent about developments, we are joining the Science Based Targets initiative. To further improve the reporting of climate-related risks and opportunities, the Volvo Group supports the Task Force on Climate-Related Financial Disclosures (TCFD) and will continue to develop the company's reporting in accordance with its recommendations.

A key part of achieving our ambitions in the climate area is about developing and offering electric trucks, buses, construction equipment and drivelines. The change takes place here and now. The interest from our customers is great, and they see the benefits of working with vehicles and machines that drastically reduce emissions and offer a quieter and better working environment for both drivers and the environment. Our roadmap is clear. We now also electrify our heavy-duty truck offers and take it step by step in all business areas. In the next few years, we will see electrification take off segment by segment, market by market and region by region. This is an opportunity for us to advance our positions further. An important key is our modular vehicle architecture that allows us to put either an internal combustion engine or an electric driveline in the same chassis. In this way, we reduce development time, costs and can enter the market faster with new offers. In addition, we can manufacture different variants on the same assembly line, which again reduces costs and enables us to scale up volumes quickly when conditions are right. Last but not least, we have very strong relationships with many of our customers who want to make this exciting journey with us and our partners. It is the power and trust in these collaborations that will make the shift take off.

We have a leading position and in 2020 we took further steps in several segments. Customers in both Europe and the US took electric distribution trucks from both Volvo Trucks and Renault Trucks into operation in their daily operations. Volvo Trucks is taking the next step this year and is also launching heavy-duty electric trucks in Europe. This way, customers are offered a complete program of electric trucks. Volume production is planned for 2022. Mack Trucks introduced electric refuse trucks, Volvo Buses began deliveries of the largest order for electric buses in the Nordic region – 145 fully electric articulated buses to Gothenburg, Sweden, Volvo Penta developed a driveline for firefighting vehicles and Volvo Construction Equipment began delivering electric compact excavators and compact wheel loaders. This is just to name a few examples.

The introduction of connected, electric and in some segments also autonomous solutions, calls for a holistic approach, where we take even greater responsibility for vehicles, battery and energy systems, uptime services, maintenance and repairs, financing and more. This opens up for new discussions with our customers about how we can work together to make the logistics chain even more efficient. Already today, we offer our customers production equipment – vehicles and machines with associated service – as a service at a fixed cost per month. Tomorrow, there will be a wider range of business models, from one-time transactions to situations where we offer our customers transport as a service. In this landscape, partnerships with other leading companies are an important component. During the past year, we signed agreements with Daimler Truck AG to form a joint venture for the development and large-scale production of fuel cells for electric vehicles and other applications, as well as with Isuzu Motors for the formation of a strategic alliance and the divestment of UD Trucks.

The past year really highlighted the need to be able to both perform here and now and at the same time transform and build for the future. I am proud of what we have achieved and also of the drive in the organization to constantly make things better. It is thanks to fantastic people that we will continue the journey of both improving profitability over the business cycle and developing tomorrow's climate-smart and competitive transport and infrastructure solutions.

Martin Lundstedt
President and CEO

STRATEGY

THE FUTURE OF TRANSPORTATION AND INFRASTRUCTURE

The world is changing. In many aspects it is becoming a better place to live in with a global decrease in poverty, increase in life expectancy and declining cost for renewable energy. But there are also challenges. The need to drive sustainable development and to grow within the planetary boundaries is greater than ever.

AN INCREASINGLY URBAN AND CONNECTED PLANET

The world's population is growing quickly and the world is becoming more urbanized. By 2030, it is expected that two thirds of the global population will be living in cities. Urbanization is a global megatrend – with many different faces and implications for transportation and infrastructure. Projections show that urbanization combined with the overall growth of the world population could add another 2.5 billion people to the urban community by 2050, equivalent to today's combined population of China and India. This development will have both environmental and social implications. Looking ten years into the future, we believe that sustainability is a pre-requisite for doing business. People shop online and more and more people prefer using services rather than owning products. More power has shifted from producers to consumers and expectations on user experience are extremely high. Companies use data to provide seamless and individualized services and products.

Factors expected to drive change

In 2030:

- 8.6 billion people share the planet, with 70% living in cities.
- 4 out of 5 economic superpowers are found in Asia.
- 90% of all people have access to the internet.
- Effects from climate change are clearly visible.
- Consumer power is increasing and consumers are getting used to seamless and customized solutions in digital channels.

What will this mean for business?

- Increased demand for transport and infrastructure solutions.
- Being sustainable is a must.
- An increasing number of consumers prefer utilizing services as opposed to owning products.
- Companies owning customer interfaces and relevant data thrive as they can provide seamless and individualized services and products.
- More power resides with the buyer. B2B (business-to-business) and B2C (business-to-consumer) have merged into B2P (business-to-people).

ONE GLOBAL AGENDA FOR 2030

The Sustainable Development Goals (SDGs) were set in 2015 by the United Nations General Assembly and signed by all member states – for which reason they are referred to as one global agenda for 2030. Our commitment to achieving development without exceeding the planetary boundaries includes all 17 SDGs. Several topics, such as equality and fighting corruption are universal for all enterprises. Beyond these universal responsibilities, we identify closer connections and impacts from our business and operations in a number of goals.

In the Volvo Group, we describe our sustainability work in the areas:

- **Climate** – reducing emissions from our own operations and value chain as well as from the use of our products. We focus on increased fuel and energy efficiency, electrification and alternative fuels.
- **Resources** – utilizing transports and material in the most resource-efficient ways possible. We create value for our customers by providing them with higher uptime and utilization.
- **People** – because safety and human rights make up the foundation for prosperity.

We highlight some of our activities and their main connections to the SDGs in this report. In addition, in the Sustainability Notes on pages 150–171, we further connect our detailed disclosures to specific targets in the UN's sustainability agenda.

MOVING INTO THE GOLDEN AGE OF LOGISTICS

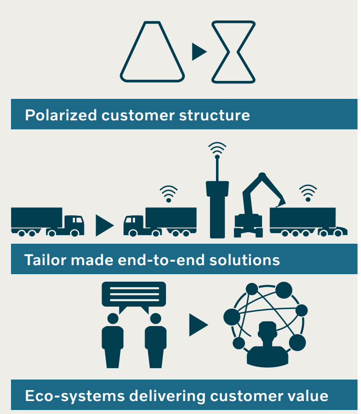
An increasing global population, booming e-commerce and a growing, connected middle class contribute to rising demand for construction and transportation in the future. Climate change, congested cities, hazardous road and working conditions call for future transportation technology and systems solutions that are safer, cleaner and more efficient. The increased need for transport and new infrastructure combined with the rapid development of new technologies provide great opportunities for our industry, which we believe is moving into a golden age of logistics. Looking ahead, we foresee that a new transport landscape will emerge. New technologies and new business models will result in safer, more sustainable and more efficient ways to move goods, material and people.

Factors expected to drive change

- Electromobility requires total solutions.
- Autonomous solutions give radical efficiency potential.
- Digitalization and connectivity enable optimization.
- Sustainability equals profitability.

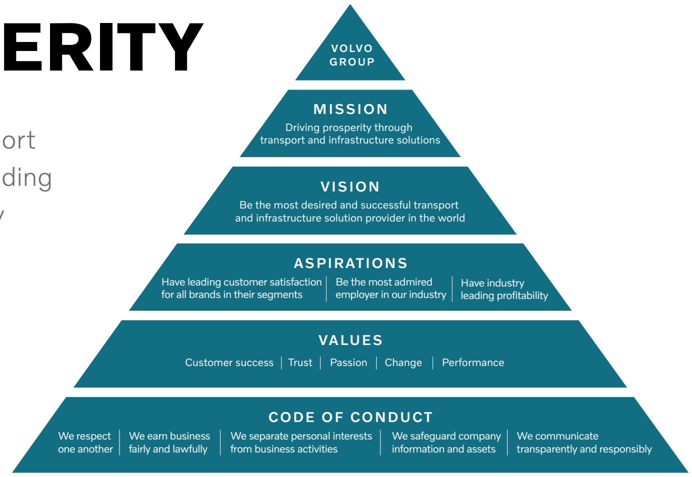
What will this mean for our industry?

- Customer structure changes, increased importance of large customers.
- From standardized products to sustainable and tailor-made end-to-end solutions.
- Different eco-systems delivering customer value.



DRIVING PROSPERITY

Our mission is to drive prosperity through transport and infrastructure solutions. Our vision is our guiding star. The work we do every day should ultimately contribute to us becoming the most desired and successful transport and infrastructure solution provider in the world.



Shaping the world we want to live in

We are driving prosperity through transport and infrastructure solutions – to shape the world we want to live in. Volvo springs from a genuine humanistic approach and builds upon a history of innovation. Our solutions improve the everyday life of our customers and for society at large. The health, safety and wellbeing of people is our main priority. A growing population creates a need for more transports of people and goods. Our ambition is to contribute by offering leading transport and infrastructure solutions enabling societies to prosper in a sustainable way.

Creating value

Our vision is about creating value. We deliver sustainable transport and infrastructure services and solutions tailored toward specific customer needs. We offer both total solutions and easy to integrate products and services through multiple sales channels.

Our aspirations guide us on our journey and we lead by example. We are a trusted partner to our customers – their needs drive everything we do. Our culture is built around care for people. We are purpose-driven and build engagement through inclusiveness and diversity. An increasing part of our revenues comes from services and solutions.

Our values guide our leadership, our behavior and our actions. We create a high performing culture by focusing on results, helping each other succeed and providing opportunities for growth and development. We have a business mindset. Everything we do starts with our customers and their needs and quality is the starting point for our performance. We drive continuous improvement and encourage each other to try, learn and develop. By consistently doing business with integrity and following our Code of Conduct we build trust.

We drive a significant transformation and to succeed, our strategy is more relevant than ever.

THE VOLVO GROUP JOURNEY CONTINUES

1999 to 2011 the Volvo Group's strategy was primarily targeted at growth, not least through acquisitions, while at the same time focusing the business on commercial vehicles.

In 2012 to 2015 the Volvo Group underwent a transformation program aimed at reorganizing the company to take out overlaps, reduce structural costs and increase efficiency and profitability after the period of acquisition-driven growth. During this period, there was one major acquisition – 45% of Dongfeng Commercial Vehicles (DFCV) in China in 2015.

The period between 2016 and 2018 was characterized by reinforcement of the performance culture evidenced by a more decentralized organization and a regionalized value-chain approach. The improved performance, with increased profitability and further customer focus developed into the current focus – Perform and Transform.

Perform and Transform are not sequential events, they need to be run in parallel. To stay relevant and profitable, driving both current business performance and the transformation to meet future demands is our key focus going forward.

The continuous streamlining of the Group's business portfolio has also included the divestment of Volvo Cars (1999), Volvo Aero (2012), Volvo Rents (2014) and 75.1% of Wireless Car (2019).

1999–2011

ACQUISITION-DRIVEN GROWTH

Scale, synergies and geographical expansion.

MAJOR ACQUISITIONS

2001
Renault Trucks and Mack Trucks

2007
Nissan Diesel (now UD Trucks)

2007
70% of Lingong (SDLG)

2007
Ingersoll Rand Road Development

2008
VECV (joint venture with Eicher)

Our ambition is clear. Driving prosperity socially, environmentally and financially means striving for transport and infrastructure solutions that are:

100% safe

The health, safety and wellbeing of people is our main priority.

100% fossil-free

Climate change is the challenge of our generation. Our ambition is to enable our customers to go fossil free and we strive towards net zero emissions from our operations and supply chain.

100% more productive

By drastically increasing productivity and efficiency in logistics systems it is possible to meet a growing need for transports while staying within the boundaries of what our planet can sustain.

2012–2015

CLOSING THE GAP

Product renewal, restructuring and cost efficiency.

2016–2018

IMPROVED PERFORMANCE

Customer focus, simplicity, speed, continuous improvement and organic growth.

2019–

PERFORM AND TRANSFORM

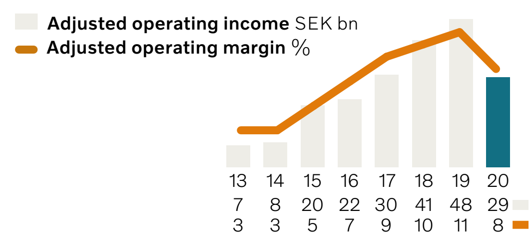
Customer-centricity, continuous performance improvement, accelerate solutions and partnerships for sustainability.

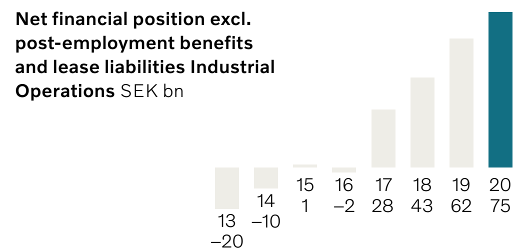
PERFORM – STRENGTHENING THE RESILIENCE OVER THE CYCLE

During the last couple of years, the performance of the Volvo Group has improved substantially. Our focus has been on a gradual and consistent earnings improvement, reduced volatility in earnings and cash flow as well as allocating capital in a disciplined way. We have great assets in our people, products and services as well as production sites and well-established dealer networks. We are in a good position to support our customers. To keep this position and to be able to invest further in new technologies, our focus is on excelling on the basics as well as building resilience.

Our current business will be the base for the Volvo Group in many years to come. The attention is on being agile and flexible in terms of production volumes, to use our common architecture and shared technology (CAST – see page 26) wherever possible and to have continuous introductions instead of major launch projects. Our quality work is crucial to achieve customer satisfaction and the work of regionalizing our value chain is necessary to give our people the right prerequisites to serve our customers.

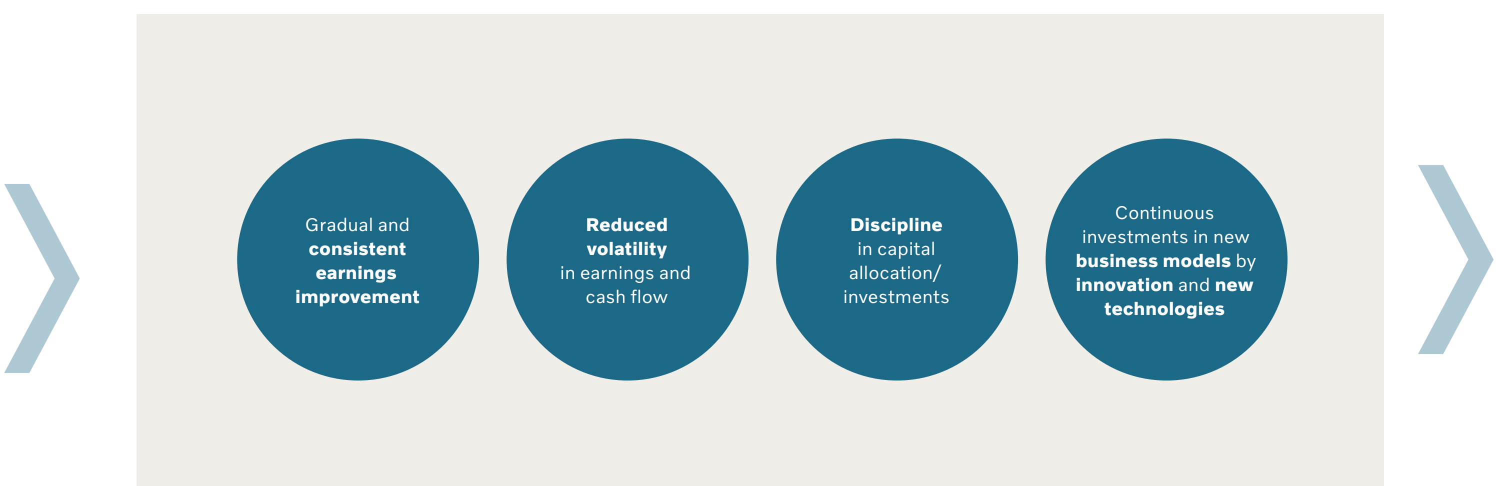
Building resilience is key to our long-term profitability. There are more than 2.8 million trucks, buses and machines, produced by the Volvo Group, operating on or off-road. Of those, more than 1.1 million are connected. With this as a base we can extend our service offer and defend or capture market share. Increasing uptime benefits our customers, and a larger service business also improves our resilience across the business cycle.





Profitability has improved in recent years. In 2020, the adjusted operating margin amounted to 8.4% (11.1), despite the impact from the ongoing Covid-19 pandemic. In 2016-2020 the average adjusted operating margin was 9.1%. The Group's financial position has also been strengthened with a net cash position in the Industrial Operations of SEK 74.7 billion excluding post-employment benefits and lease liabilities at year-end 2020.

IMPROVE PERFORMANCE AND INVEST FOR THE FUTURE



TRANSFORM – IMPLEMENTING A CLEAR DIRECTION

We are well positioned to drive the transformation of our industry to shape the world we want to live in. We have made great progress in improving performance in recent years. Going forward, the speed of transformation will increase. Our ambitions are clear:

- More than 50% of Group revenues should come from services and solutions by 2030
- More than 35% of our vehicle sales should be electric by 2030
- We will lead by example with a world-class, sustainable in-house logistics system by 2025
- We will implement at least 100 transport and infrastructure solutions together with our customers by 2025.

Battery-electric vehicles are a good solution for city distribution, city buses, regional haulage and similar applications. For use cases with heavier loads or longer distances, hydrogen fuel cells will be an important technology. The two technologies complement each other, and both will be needed in order for us to build the sustainable transport system of tomorrow.

Martin Lundstedt, President and CEO

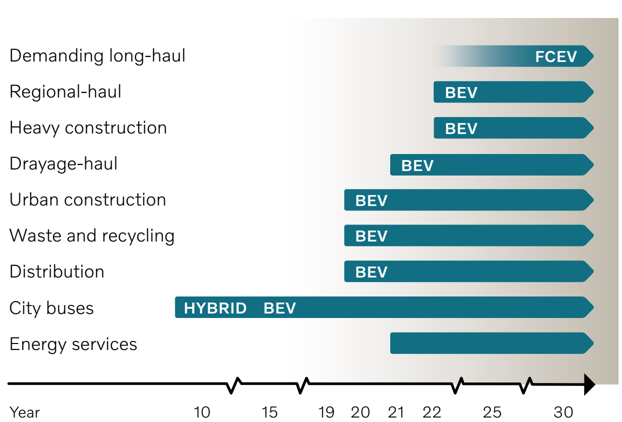
Transform to provide value

We transform our business to provide even greater value to our customers and respond to the need for sustainable transport solutions that are safe, fossil free and more productive. The drivers of transformation within our industry are clear. Today's trucks are not used to their full capacity due to congestion, resting time regulations, and low fill rates. A fully-loaded truck operating on diesel is one of the most energy-efficient ways of transporting goods on our roads with current infrastructure, but there is no doubt that electromobility and alternative fuels will be crucial going forward, as we aim to provide even more sustainable transport solutions and meet future more stringent CO_2 regulations.

When it comes to safety aspects, it is a fact that people die in traffic and human error is by far the main reason. It is also a fact that people and goods spend too much time in congestion. Our daily life pattern and non-optimized infrastructure and logistics models result both in temporary congestions and at other times heavily unutilized road networks. The last couple of years we have continuously invested in new business models and new technologies to be able to offer safer, more sustainable and more productive solutions to our customers. Another advantage is that our industrial footprint is easily adapted to manufacture vehicles with different drivelines on existing assembly lines.

There are huge opportunities for the Volvo Group and to get real traction and impact, the focus is on accelerating the commercialization of new technologies and business models. This is when the real change happens.

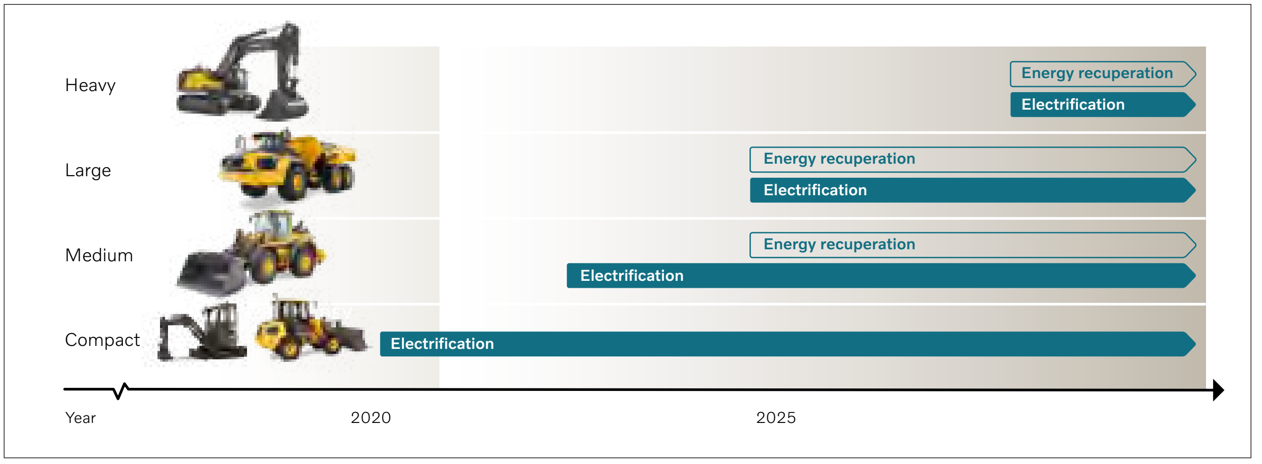
FAST-PACED INTRODUCTION OF ELECTRIC VEHICLES



Our fast-paced introduction of electric trucks and buses has started. We are building on the experience from the city bus applications, where we have more than 10 years of experience from electrification – starting with hybrid-electric solutions and building that into battery-electric buses. On the truck side, Volvo Trucks, Renault Trucks and Mack Trucks started series production of medium-duty trucks for important segments such as distribution, waste and recycling as well as urban construction in 2020. The Group will continue its step-by-step roll-out of products and solutions for all relevant truck segments: container haulage, heavy construction, regional haul and eventually also the really heavy-duty long haul segment, which will be a combination of battery-electric (BEV) and fuel cell-electric vehicles (FCEV). We are also reinforcing our capabilities and offerings when it comes to energy services.

VOLVO CONSTRUCTION EQUIPMENT ELECTRIFICATION ROADMAP

This is the introduction plan when it comes to the electrification of construction equipment. The production of the first two electric models has started for selected markets in Europe and further countries will follow from 2021 onwards.



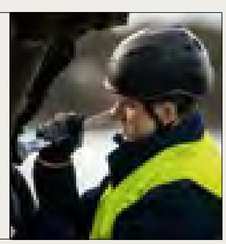
ADDRESSING A BROAD SPECTRUM OF CUSTOMER SEGMENTS

The transformation to electric vehicles is expected to happen segment by segment, market by market and region by region. It has already started in public transport, distribution, waste and recycling and certain construction segments in some markets. When total cost of ownership is outweighed by the opportunity to provide fossil-free transportation and necessary conditions such as charging infrastructure is in place, we believe that the shift to electric vehicles and machines will be quick. The Volvo Group has deep customer knowledge and application expertise within many segments and this will remain a decisive factor in providing customer value.

OUR 7 STRATEGIC PRIORITIES HAVE BEEN UPDATED

To be successful the key is to create value for our customers by impacting their profitability. By understanding our customer's priorities and challenges, we are able to provide products and services that grow our customers' revenues and decrease their costs. This is the basis for our strategic direction. In addition to the mission, vision, aspirations, values and Code of Conduct we have decided on seven strategic priorities for the Volvo Group to capture growth opportunities and improve underlying performance. The strategic priorities were updated during 2020 with the intention of strengthening the areas where we already perform well and adding new areas of importance for the future. The strategic priorities guide our decision-making and result in action but should not be seen as a detailed action plan in itself. The order in which the priorities are presented does not reflect relative importance.

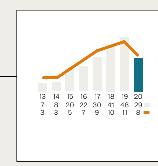
1. TRANSFORM THE VOLVO GROUP to become a leading end-to-end integrator as well as offering easy to integrate products and services through strong brands.



2. GROW THE SERVICE BUSINESS and target selected industry verticals offering a portfolio of tailor-made solutions.

3. SECURE A DESIRABLE SUSTAINABLE PRODUCT AND SERVICE PORTFOLIO with the right quality, leveraging new and well-known technologies, CAST, partnerships and digital innovation – accelerating electromobility solutions.

4. GROW IN ASIA AND THE US: In Asia through JVs, alliances and by strengthening the Volvo Group footprint in China. In the US by significantly improving the Group's market position.



5. DEVELOP ROBUST PROFITABILITY throughout the decentralized regional value chains by leveraging global scale, digitalization, a purpose-fit footprint and continuous improvement using Volvo Production System.

6. SELECTIVELY CAPTURE, ACCELERATE AND SCALE-UP NEW BUSINESSES and develop competencies and capabilities needed.

7. REINFORCE VALUE-BASED LEADERSHIP AND WAYS OF WORKING where all colleagues are empowered to take action and are accountable for the results.

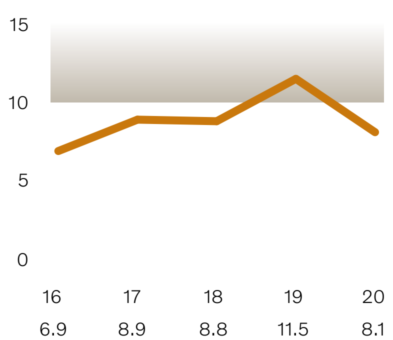
STRENGTHENED FINANCIAL POSITION

The Volvo Group has in recent years gone through a substantial restructuring process in order to reduce structural costs and increase efficiency and is currently in a phase where focus is on organic growth and improved profitability through continuous improvement and innovation.

Current financial targets were decided on by the Board of Directors in 2017. A clear and straightforward operating margin target supports the efforts to drive performance across the Group through the business cycle. The target also aligns with the way the Group and its business areas are challenged and measured internally. The Board's target is for the Group's operating margin to exceed 10% measured over a business cycle.

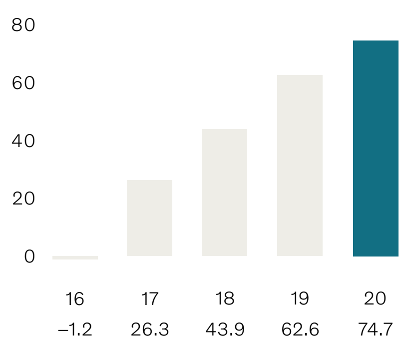
A debt-free industrial balance sheet, excluding pension and lease liabilities, enables the Volvo Group to better manage cyclicality in a capital-intensive industry and to secure competitive cost of funds for the Financial Services' operation.

Operating margin for the Volvo Group, %



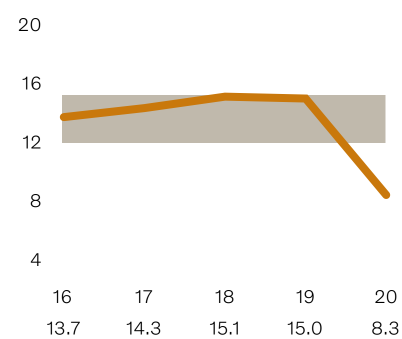
The Volvo Group's operating margin shall exceed 10% measured over a business cycle.
In 2020, the operating margin amounted to 8.1% (11.5). The adjusted operating margin amounted to 8.4% (11.1). For more information on adjusted operating margin, please see Key Ratios on page 194.

Net financial position excl. post-employment benefits and lease liabilities Industrial Operations, SEK bn



The Industrial Operations shall under normal conditions have no net financial indebtedness excluding provisions for post-employment benefits and lease liabilities.
At the end of 2020, the Industrial Operations had a net financial asset position of SEK 74.7 billion.

Return on equity in Financial Services, %



Financial Services' target is a return on equity of 12–15% at an equity ratio above 8%.
In 2020, return on equity amounted to 8.3% at an equity ratio of 8.0%.

Our strong financial position gives us the ability to continue to invest in our future in order to secure an even more competitive customer offering.

VALUE CHAIN

DRIVING PERFORMANCE TO CREATE VALUE

The Volvo Group generates long-term competitiveness by maximizing value creation in every part of the value chain through increased efficiency, quality and performance and by acting responsibly towards business partners, employees and the world around us.

CUSTOMERS
The customer is at the center of everything we do, and the customer's voice is present in every part of the value chain. By delivering customer value we deliver value for ourselves and our stakeholders. Our customers contribute to prosperity by transporting people and goods as well as providing societies with infrastructure that advance development. Our aim is to support our customers by providing offers that increase their productivity, secure uptime and increase fuel efficiency, which drive their financial performance and reduce their impact on the environment.

PRODUCT DEVELOPMENT
Fulfilling our customers' needs and improving their profitability and environmental performance forms the basis of our product and service development. Product development is also influenced by legislation, changes in society and new technologies. There are strong trends such as automation, electromobility and connectivity that need to be balanced with investments in development of current technologies. Examples of customer solutions that are improving safety, efficiency and environmental performance are found on pages 24–36. Additional information about environmental and safety performance are found in the Sustainability Notes on pages 156 and 164.

PURCHASING
Long-term cooperation with suppliers drives efficiency, quality and responsible behavior throughout the value chain. The Volvo Group is aiming for purchasing excellence, placing high demands on ourselves and our supply chain partners. We have both global and local supply chains to deliver components, parts and complete services and systems. When developing a robust supplier base, we look at a wide range of opportunities and risks. During 2020, we continued to prepare supply chain partners for new needs in the transformation towards carbon neutral products and operations. We have also invited suppliers to collaborate for securing sustainable minerals. Read about social and environmental supplier assessments on page 167.

PRODUCTION AND LOGISTICS
Our global industrial and logistics system efficiently uses continuous improvement to meet internal targets and deliver on customer expectations. The industrial system consists of capital-intensive component factories as well as labor intensive assembly plants. The component factories supply the Group's needs on a global basis, whereas assembly plants, in most cases, are located close to end-markets to cater for local needs and specifications and shorter delivery time. Read more about environmental metrics, targets and performance in production and logistics on page 155–157.

RETAIL AND SERVICE
Our global network of dealers and service centers staffed by competent and service-oriented personnel are key factors for customer satisfaction and success. The brand organizations within the Volvo Group support customers via efficient dealer workshops, and through service and maintenance agreements. With our service contracts and connected solutions, customers know when their vehicle or machine is due for service and what the cost will be for maintenance and repairs. Customers can bundle their vehicle, financing and other service purchases for a total solution. We work together with our retail organization through continuous improvement and dealer development programs to ensure our customers get the best possible service.

REUSE
We strive to increase material efficiency and reduce energy use. In this work, we incorporate more recycled materials, recover heat and recycle waste. Our waste management is further described on page 158. Extending service life and operational uptime of assets is an important element of increased circularity and resource efficiency. Here, the main elements are to service, maintain and repair to increase the utilization rate of all materials in the products. As we increase our service-based business, the main output is uptime and availability of machines and vehicles. This is a prerequisite to focus even more on recyclability and remanufacturing. See examples on page 32.

DRIVING PROSPERITY FOR MANY STAKEHOLDERS

FOR CUSTOMERS
Almost 2 million trucks and 100,000 buses, which the Group manufactured in the past ten years, perform transport work worldwide. Construction equipment operate at sites all around the world, us having delivered about 650,000 machines in the last ten years. For our customers, uptime is everything. Regardless if it is a customer that owns one single truck or a fleet of trucks, if they are a public transport provider or a coach owner, a construction entrepreneur or a quarry owner; their performance depends on reliable products and services that meet the needs of their business. The Volvo Group has a long heritage of developing smart solutions to boost their performance.

UPTIME AND PROFITABILITY

FOR EMPLOYEES
The Group's almost 100,000 employees are our most important asset. Employee engagement and a performance culture based on customer success, trust and passion are critical for the Group to fulfill its mission. The Group strives to offer competitive employment terms and benefits as well as a stimulating, safe and healthy work environment. In 2020 we paid SEK 40,887 M in salaries and remuneration.

SEK 40.9 BILLION

FOR SOCIETY
Our products and services make societies function. Our customers operate bus lines so that people can get to work, they transport food and industrial goods and they build infrastructure such as roads and hospitals. Furthermore, road transport directly creates millions of jobs around the world. We also contribute to the local economy by being a major employer in many communities, providing both direct and indirect employment. In 2020 the Group paid SEK 9,270 M in social costs, SEK 3,631 M in pension costs and SEK 4,927 M in income taxes, in total SEK 17, 828 M. We also pay customs duties as well as property and energy taxes.

SEK 17.8 BILLION

FOR SUPPLIERS
A solid supplier base and professional partnerships are essential for customer success. The Volvo Group provides both income and employment for a large number of companies and in many societies around the world. Purchased goods and services is the Volvo Group's single largest expense and in 2020 we bought goods and services for SEK 232,861 M.

SEK 232.9 BILLION

FOR CREDITORS
A long-term competitive business requires access to capital to be able to invest. The Volvo Group strives to ensure that the capital is used in the best possible way and to assure debt providers with the financial strength to secure proceeds and repayment. In 2020 the Volvo Group paid its creditors in the Industrial Operations SEK 1,102 M in interest.

SEK 1.1 BILLION

FOR SHAREHOLDERS
The Volvo Group strives to generate value for its shareholders. This is achieved through a positive share price development and payout of dividends. From 2015–2020 the price for the Volvo B share increased by 127%. Shareholders normally receive a certain portion of the retained earnings in the form of a dividend, after consideration has been given to the Group's need for capital for continued development according to its strategies. For 2020 the Board of Directors proposes an ordinary dividend of SEK 6.00 per share and an extra dividend of SEK 9.00 per share, in total SEK 30,502 M.

SEK 30.5 BILLION

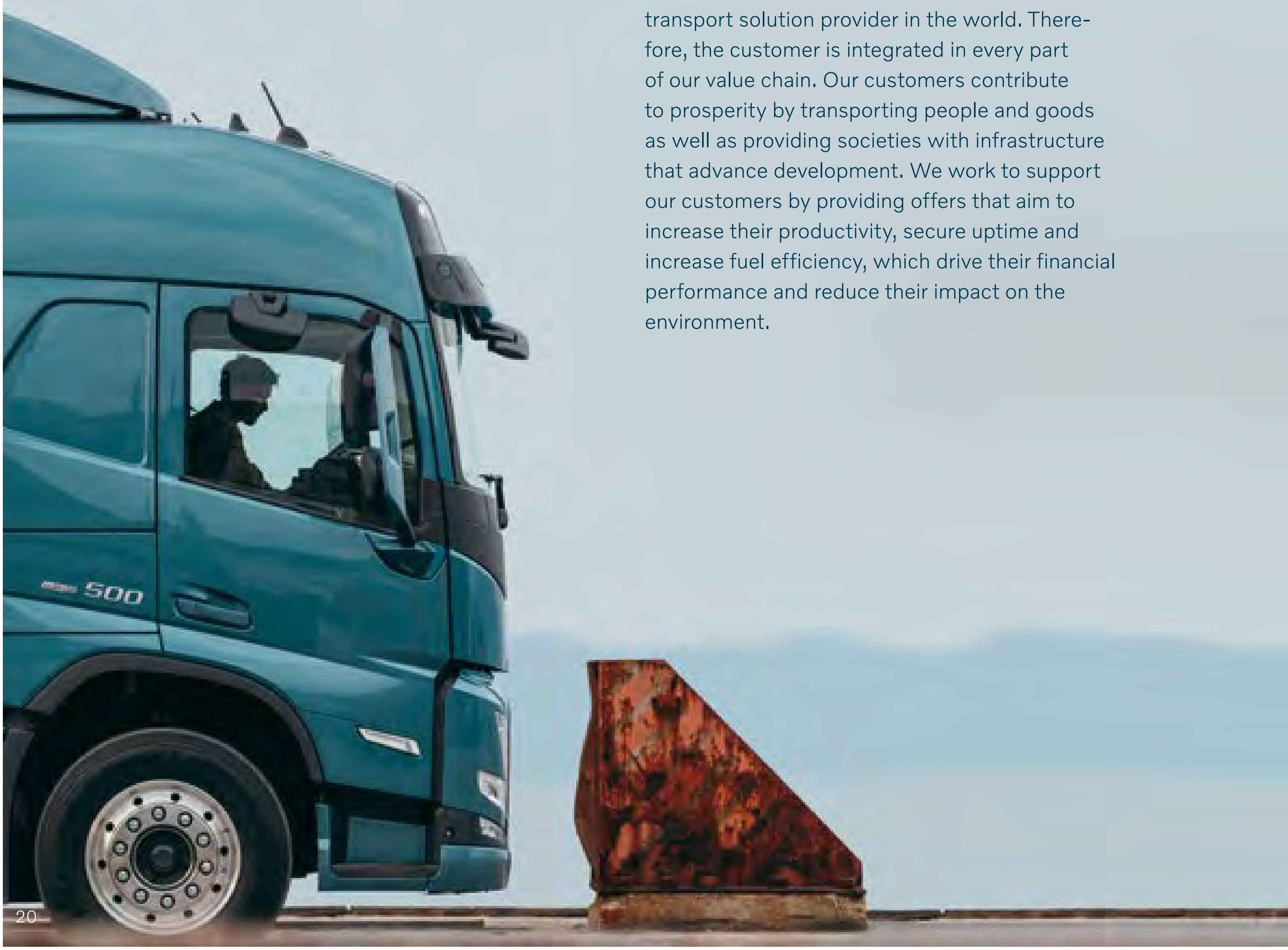
FOR THE VOLVO GROUP
A significant portion of generated capital is normally transferred back into the business. The capital is used for investments that will strengthen competitiveness and create long-term value for the Group and its stakeholders. In 2020, the Volvo Group invested SEK 16.8 billion in R&D and another SEK 5.7 billion in properties, plants and equipment, in total SEK 22.5 billion.

SEK 22.5 BILLION

CUSTOMERS

INCREASED UPTIME AND IMPROVED PROFITABILITY

We strive to be the most desired and successful transport solution provider in the world. Therefore, the customer is integrated in every part of our value chain. Our customers contribute to prosperity by transporting people and goods as well as providing societies with infrastructure that advance development. We work to support our customers by providing offers that aim to increase their productivity, secure uptime and increase fuel efficiency, which drive their financial performance and reduce their impact on the environment.



Customer focus

Throughout our value chain our customer focus is central. For product development this means developing productive and fuel-efficient solutions for our customers. In production we strive to have the highest quality, which also requires a high standard from our suppliers. Our distribution and service network secures availability and uptime for the customers. We use a circular mindset and adopt responsible business behavior to build trust and make sure our products contribute to prosperity.

We analyze the segments and applications our customers operate in to find the best current solutions, capture future opportunities and prepare for market changes. Our research projects, in collaboration with our customers and other partners, are a vital part of product development when we prepare for meeting future demands.

Create value for our customers

From our day-to-day work with customers and through interviews, customer satisfaction surveys and materiality analysis, we know that our customers put the highest value on productivity, uptime and fuel efficiency. Future technologies provide great potential for increased productivity for our customers. To secure uptime, new vehicles developed within the Volvo Group are equipped with connected devices to be able to download updates, schedule services and prevent unplanned stops. More than 1,1 million vehicles and machines are connected, which is important for us to be able to achieve the goals of increasing efficiency and minimizing environmental impact, as well as making our roads safer.

Increased fuel efficiency and adaption to renewable fuels and electrified vehicles and machines are central in our product development since this has a major impact on both the environment and our customers' profitability. For instance, we offer vehicles that can run on liquefied natural gas (LNG) or biogas as well as battery-electric vehicles.

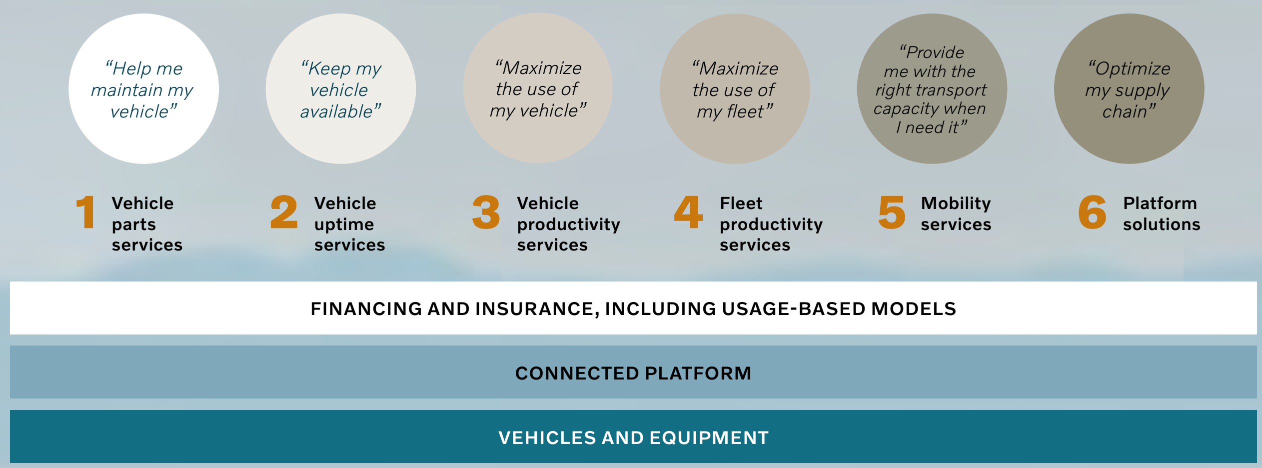
We also continue to drive the performance of the internal combustion engine. In 2020, Volvo Trucks launched a new Volvo FH with the second generation of the fuel-saving I-Save package, which can cut fuel costs by up to 10% compared to the older model without I-Save. Read more about Volvo FH with I-Save on page 26. The truck was part of an extensive renewal from Volvo Trucks, which introduced four new heavy-duty trucks with a strong focus on the driver environment, safety and productivity. The four truck models, Volvo FH, FH16, FM and FMX, represent about two thirds of Volvo Trucks' deliveries.

"We are really proud of this forward-looking investment. Our aim is to be our customers' best business partner by making them even more competitive and help them attract the best drivers in an increasingly tough market", says Roger Alm, President Volvo Trucks.

Measure success

Customer satisfaction is the true measure of success. Our aspiration is to have leading customer satisfaction for all brands in their segments. Through world-wide surveys, each brand organization within the Volvo Group tracks customer satisfaction and brand image perception. The data is an important part of understanding our customers' needs and continuous improvement. Research and studies are performed by leading market research companies and carried out with decision makers among customers and noncustomers.

SUPPORTING CUSTOMERS WITH DIFFERENT NEEDS



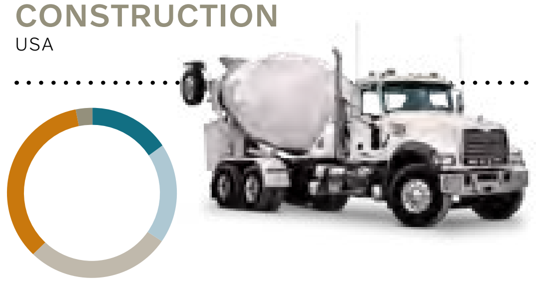
There are different business models for different customers. The range goes from selling a vehicle or machine and get paid by unit, to solving the customer's mission and get paid by result. We will have different offerings along the entire range for different customers depending on preferences, segments and geographies.

DIFFERENT TRUCKS FOR DIFFERENT APPLICATIONS

DISTRIBUTION
FRANCE

MINING
INDONESIA

CONSTRUCTION
USA



LONG-HAULAGE
EUROPE

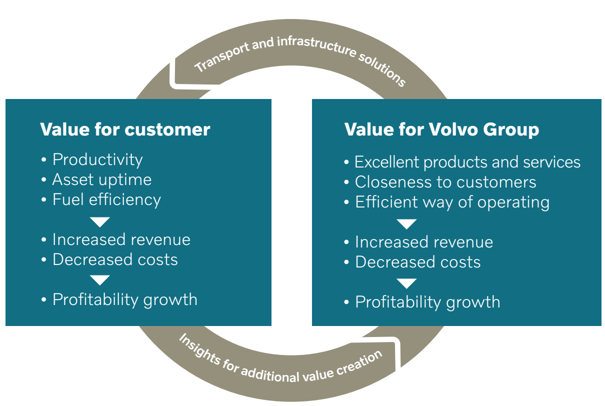
Customers have different cost structures and therefore want different offers depending on their location and the type of transport work they carry out. Creating customer value by improving our customers' profitability therefore means offering products developed for each market and application.

COSTS

- Fuel
- Driver
- Vehicle
- Repair & maintenance
- Administration

VALUE CO-CREATION

To be successful the key is to create value for our customers by contributing to improving their profitability. By understanding our customers' priorities and challenges, we are able to provide products and services that grow customers' revenues and decrease customers' cost. Key areas to create value for our customers are offers that increase our customers' productivity, secure uptime and increase fuel efficiency. By delivering customer value efficiently, we will also deliver value for ourselves, our owners and society.



RESPONSIBLE BUSINESS

A prerequisite for building trust with customers, business partners and society is to conduct business with integrity and in compliance with applicable law. Our Code of Conduct sets the frames for our business ethics and our expectations on everyone involved in our business.

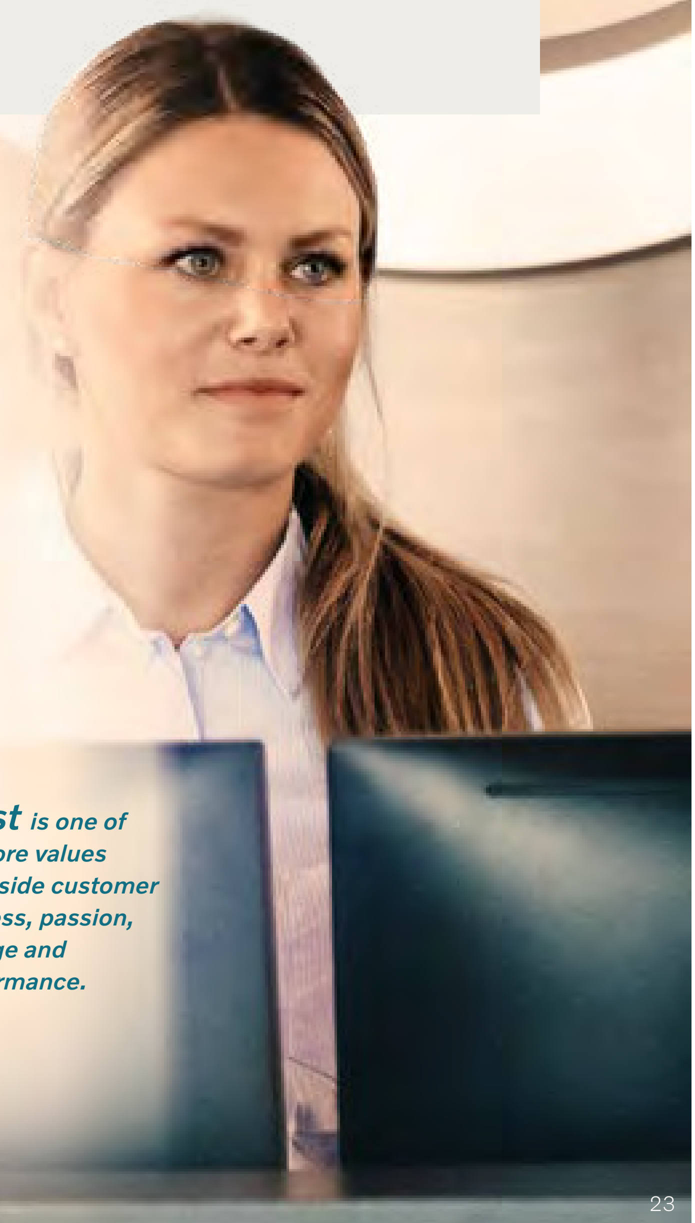
At the Volvo Group, we condemn all forms of bribery and corruption and we are committed to work actively against it wherever we do business, and we are committed to respect human rights. In this work, we are guided by international frameworks such as the UN Global Compact and the UN Guiding Principles on Business and Human Rights. The overall purpose in this work is for our colleagues and business partners across the value chain to act ethically. See detailed information about human rights and business ethics on pages 165–169.

Adherence to the Code of Conduct is monitored through management control systems and internal controls. A whistle-blower policy encourages all employees to report suspected violations to their managers or other management representatives. If reporting to superiors is not feasible, or is not taken seriously, employees have the possibility of escalating suspected violations to Corporate Compliance and the opportunity to remain anonymous were permitted by law. The Volvo Group does not tolerate retaliation against a person for making complaints in good faith of violations or suspected violations against the Code of Conduct.

Volvo Group whistle is open to employees as well as external stakeholders. It is made and available in local languages and hosted by a neutral third party. A summary of reported cases is available on page 169.

The Volvo Group Code of Conduct
Our Code outlines the requirements for how we act and do business in the Volvo Group. It includes respect for people and the environment, doing business in fair and lawful ways, acting in a responsible way and speak up when we see something that doesn't seem right.

- We respect one another.
- We earn business fairly and lawfully.
- We separate personal interests from business activities.
- We safeguard company information and assets.
- We communicate transparently and responsibly.



***Trust** is one of our core values alongside customer success, passion, change and performance.*

CLIMATE

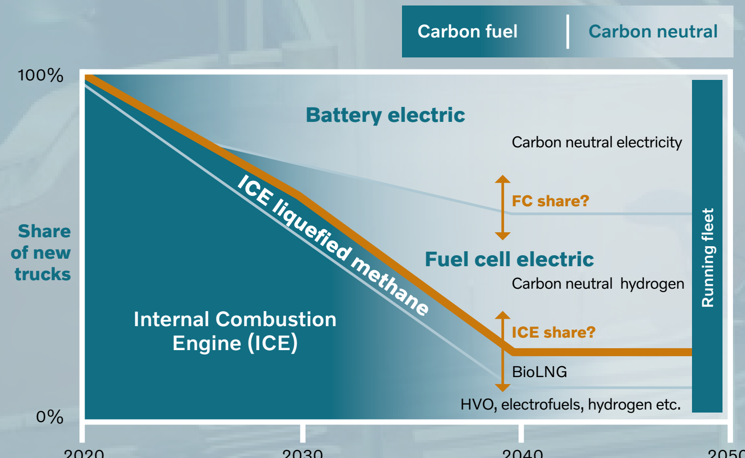
TOWARDS FOSSIL-FREE TRANSPORTS

We are committed to the Paris Agreement and to decarbonizing our industries. Our focus is to bring innovative and competitive solutions to the market in areas where we can make the greatest impact.

TOWARDS CARBON-NEUTRALITY

CONTRIBUTING TO THE PARIS AGREEMENT

It takes about ten years for customers to renew their entire fleets. In order to have a rolling fleet that is completely fossil free by 2050, it is our ambition that all Volvo Group products delivered from 2040 should enable our customers to go fossil free. Even when the majority of vehicles are electric, we foresee use cases for internal combustion engines (ICE) running on sustainable biofuels or other fossil-free fuels. As illustrated below, we expect a gradual shift into electric vehicles, both battery-electric and fuel cell-electric. Our ambition is that by 2030, electric vehicles should account for at least 35% of our vehicle sales. On the way towards decarbonized transport, there will be legislative milestones when it comes to CO_2 across the globe. We continue to invest in combustion engines and aftertreatment systems in order to increase efficiency, meet the legislative milestones and stay competitive. In addition to focusing on tailpipe emissions, we are working with and encouraging our suppliers and partners to introduce fossil-free materials (CO_2-free steel, plastics and rubber) for the development of our products and solutions. We are also continuing the work to reduce emissions from our manufacturing operations by increasing the share of renewable energy and improving energy efficiency. This scenario also requires other stakeholders to contribute with e.g. the expansion of infrastructure. Read more about this scenario and climate-related risks and opportunities on page 152–153.



Main connections to UN Sustainable Development Goals

7.3 – Double the rate of energy efficiency
11.3 – Sustainable transport systems
13.3 – Awareness and capacity on climate change mitigation and impact reduction

Currently, the vast majority of emissions from the Group's products occur during the use phase of their life cycle. Therefore, our focus is on the development of products and solutions that reduce the CO_2 footprint for our customers. We also make significant efforts to increase energy efficiency and reduce emissions from our own operations.

H2ACCELERATE

NEW COLLABORATION FOR ZERO EXHAUST EMISSION HYDROGEN TRUCKING

In December, the Volvo Group, Daimler Truck AG, IVECO, OMV and Shell committed to work together to help create the conditions for the mass-market roll-out of hydrogen trucks in Europe. As a growing number of governments and businesses align on a common vision of a net-zero emissions energy system, the H2Accelerate participants believe that hydrogen is an essential fuel for the complete decarbonization of the truck sector.

Electric solutions in all business areas

Electrification will be key in the transition towards a fossil-free future. The Volvo Group aims for a fast-paced introduction of fully electric solutions in all its product areas. Electric propulsion allows for zero exhaust emissions in use but is dependent on the CO_2 footprint of the used electricity.

Powered by alternative fuels such as sustainable biofuels and hydrogen, the combustion engine will continue to play a significant role for our customers' ability to reduce CO_2 emissions. We will continue to improve the efficiency of existing technology and we have high expectations for the use of alternative fuels where sustainable supply can be provided.

Today, the transport system and infrastructure industry are to a great extent powered by fossil energy. We are in the beginning of a transition and Volvo Group's product portfolio is broad. We deliver products powered by conventional diesel, fossil-free alternative fuels, or a combination. We are working on electrifying transport and infrastructure solutions and we are investing in new technology development such as hydrogen fuel cells.

VOLVO GROUP AND DAIMLER TRUCK

FORMATION OF A JOINT VENTURE FOR LARGE-SCALE PRODUCTION OF FUEL CELLS

The Volvo Group and Daimler Truck AG have signed a binding agreement for a joint venture to develop, produce and commercialize fuel-cell systems for use in heavy-duty trucks as the primary focus, as well as other applications. The ambition of both partners is to make the new company a leading global manufacturer of fuel cells, and thus help the world take a major step towards climate-neutral and sustainable transportation by 2050. The joint venture will take advantage of the expertise and extensive experience from several decades of development work on fuel cells at Daimler.

"In the future, the world will be powered by a combination of battery-electric and fuel-cell electric vehicles, along with other renewable fuels to some extent. The formation of our fuel-cell joint venture is an important step in shaping a world we want to live in," says Martin Lundstedt, President and CEO of the Volvo Group.

The Volvo Group will acquire 50% of the partnership interests in the joint venture for approximately EUR 0.6 billion on a cash and debt-free basis. Closing of the transaction is expected during the first half of 2021.

VOLVO TRUCKS

LAUNCH OF A COMPLETE RANGE OF ELECTRIC TRUCKS

In 2021, hauliers in Europe will be able to order all-electric versions of Volvo's heavy-duty trucks. Volvo Trucks' massive drive towards electrification marks a major step forwards on the road to fossil-free transport.

Volvo Trucks is adding the electric heavy-duty Volvo FH, Volvo FM and Volvo FMX trucks, which will be used for regional transport and urban construction operations in Europe, to the electric line-up. These trucks will have a gross combination weight of up to 44 tons. Depending on the battery configuration the range could be up to 300 km. Sales will begin in 2021 year and volume production will start in 2022.

Volvo Trucks started manufacturing the Volvo FL Electric and Volvo FE Electric in 2019. This means that from 2021 onwards Volvo Trucks will sell a complete range of battery-electric trucks in Europe for distribution, refuse, regional transport and urban construction operations. Volvo Trucks will be offering holistic solutions that include route planning, correctly specified vehicles, charging equipment, financing and services. Furthermore, in December 2020 sales of the Volvo VNR Electric, a truck for regional transport, started in North America.

"By rapidly increasing the number of heavy-duty electric trucks, we want to help our customers and transport buyers to achieve their ambitious sustainability goals. We're determined to continue driving our industry toward a sustainable future," says Roger Alm, President Volvo Trucks.

VOLVO BUSES

SPEARHEAD IN THE GROUP'S ELECTRIFICATION JOURNEY

Volvo Buses has been spearheading the Volvo Group's drive towards electrified solutions, having sold more than 5,000 electrified buses under the Volvo brand since 2010. In 2020, Volvo Buses sold 306 electrified buses. Over the past year cities such as Gothenburg, Malmö, Jönköping and Västerås, Sweden, Bodö, Drammen and Ålesund, Norway, Århus, Denmark, Vannes, France, Lodz and Gliwice, Poland, Kilmarnock, the UK and Luxembourg started to transform bus operations towards fully electric buses in partnership with Volvo Buses.

VOLVO FH LNG

Sustainable biofuels will play an important role in the transition towards fossil-free transportation

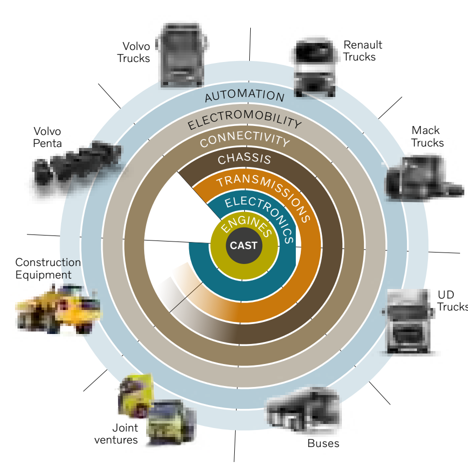
The role of sustainable biofuels is important in the transition towards fossil-free transportation. Most importantly, both natural gas and biogas can be scaled up today to reduce fossil emissions. When the Volvo FH LNG is powered by liquefied natural gas (LNG), CO_2 emissions can be reduced by up to 20% tank to wheel compared to conventional diesel. With liquefied biogas (LBG), the fossil emissions from the tank to wheel can be reduced to virtually zero. For our customers, the gas solution also helps to reduce total cost of ownership as the cost of LNG and LBG is usually lower per mile than diesel. The Volvo FH LNG has a range of up to 1,000 kilometers.

-20%

COMMON ARCHITECTURE AND SHARED TECHNOLOGY

MODULAR SYSTEM APPROACH

Backing the Volvo Group's offers is an accumulated expertise in electrified transport solutions. The solutions are based on the Volvo Group's modular system made possible by applying CAST (Common Architecture and Shared Technology). The Volvo Group develops complete driveline solutions as well as systems and components for the business areas and adapts them to their market and application needs. By utilizing CAST, the Volvo Group can secure economies of scale and reduce the time to market. When developing a new product, we do not have to start from scratch. The Volvo Group was among the first in the world to offer electric buses. Thanks to CAST, we have been able to use these components and systems and ensure that we are now also among the first in the world to offer electrical solutions also for trucks, construction equipment and Volvo Penta. The Volvo Group has a global product development system with engineering resources in different parts of the world, close to customers, to ensure that every product delivers the unique brand value that customers expect.



VOLVO TRUCKS

I-SAVE – IMPROVING FUEL EFFICIENCY

The Volvo Group continues to help customers reduce their fuel consumption. The CO_2 emissions of a typical long-distance diesel Volvo truck have been reduced by more than 20% since the 1990s. The I-Save solution is the next step in fuel efficiency. By combining the highly efficient Volvo 13-liter Turbo Compound engine and fuel-saving features, such as the map-based I-See, Volvo FH with I-Save cuts fuel costs by up to 10% in long haul operations compared with the older model without I-Save. The powerful engine produces 300 Nm higher torque at low revs. So, less acceleration and fuel is needed to keep a steady speed in highway traffic. Working in combination with I-See, the engine makes it possible to tackle hills and gradients in a higher gear – saving fuel without losing speed. The extra torque also enables a higher average speed, especially notable in hill climbing. The completely self-learning I-See system uses cloud-based map data to analyze the topography and select the optimal gear and speed.

The difference in fuel consumption is computed by comparing the costs of diesel and AdBlue for I-Save: D13TC Euro 6 step D with the long-haul fuel package, with D13 eSCR Euro 6 step D without the long-haul fuel package. The actual fuel economy varies according to many factors, such as the driver's level of experience, use of cruise control, the vehicle specifications, vehicle load, actual topography and current weather conditions.

COMMERCIALIZATION IN NORTH AMERICA

Volvo VNR Electric

Volvo Trucks started piloting the electric regional haul truck Volvo VNR Electric with customers in Southern California in the second half of 2020. In October, Volvo Trucks North America was awarded USD 21.7 M in grants to deploy 70 Volvo VNR Electric trucks in Southern California for regional freight distribution and drayage. This award enables the largest commercial deployment of heavy-duty battery-electric trucks in the US. The U.S. Environmental Protection Agency's (EPA) Targeted Air Shed Grant Program is providing USD 20 M in funding, supplemented by USD 1.7 M from the South Coast Air Quality Management District for charging infrastructure, to improve air quality in the region. Volvo Trucks will deliver the EPA-funded Volvo VNR Electric trucks to Southern California fleet operators starting in 2021 through the third quarter of 2022, allowing for at least a full year of operation by the end of the project period in 2023. Serial production of the Volvo VNR Electric will begin in 2021. The Volvo VNR Electric is offered with a range of operational solutions such as Volvo Gold Contract which covers all preventive maintenance and repairs, batteries included, as well as flexible financing and insurance solutions from Volvo Financial Services.

RENAULT TRUCKS

ELECTRIC TRUCKS IN DAILY OPERATION

In November, Renault Trucks delivered three D Wide Z.E. electric trucks to the Carlsberg Group, which will be operated by its Swiss subsidiary, the Feldschlösschen Brewery. Carlsberg aims to achieve carbon neutrality by 2030, in particular by using electric trucks. These Renault Trucks D Wide Z.E. are the first of an order from Carlsberg for 20 fully-electric trucks. The 26-tonne Renault Trucks D Wide Z.E. trucks are not concept nor test trucks, but series-produced trucks that will run in daily operations. Renault Trucks has received a number of orders for electric trucks from Swiss customers. In total, Renault Trucks will have delivered over 50 electric vehicles to Switzerland by the end of the first quarter of 2021.

ELECTRIC REFUSE TRUCK

Mack LR Electric to begin production in 2021

During the year, Mack Trucks began commercializing the Mack LR Electric, its refuse model equipped with a fully electric integrated Mack drivetrain. Keys to test vehicles were handed over to both New York City Department of Sanitation and to Republic Services. Orders for the Mack LR Electric opened in Q4 2020, with deliveries beginning in 2021. The Mack LR Electric model is suitable for refuse customers, whether commercial or municipal, seeking a zero-emissions truck that aligns with their own environmental goals and local emissions regulations. With its quiet operation, the Mack LR Electric meets the needs of customers working in an urban setting who are seeking to cut noise pollution and operate quietly at night.

VOLVO PENTA

FIRE TRUCKS WITH ELECTRIC DRIVELINE FROM VOLVO PENTA

Three pioneering fire trucks featuring Volvo Penta electric drivelines were in the autumn of 2020 sent for real-world testing with fire departments in Berlin, Amsterdam and Dubai. Volvo Penta has developed the electric driveline for leading fire service vehicle manufacturer Rosenbauer's fire truck, named "Revolutionary Technology" (RT). As part of the Volvo Group, Volvo Penta leveraged proven technology and competence from Volvo Trucks and Volvo Buses and adapted it to meet the performance requirements of a fire service application. The result is a proven Volvo Group technological solution that is tailored to meet Rosenbauer's specific needs.

VOLVO CE

ELECTRIC COMPACT MACHINES

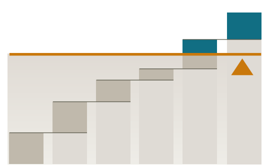
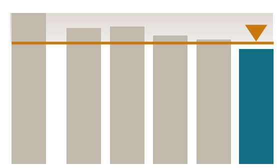
The launch of Volvo Construction Equipment's electric range began in 2020, stopping new diesel engine-based development of the compact excavators (EC15 to EC27) and wheel loaders (L20 to L28). Signaling the future for construction, the new ECR25 Electric compact excavator and L25 Electric compact wheel loader, which were the first ones out, benefit from zero exhaust emissions and low noise levels and vibrations, making them suitable for inner city jobsites – in fact any sensitive work environment. The first series-produced machines reached customers towards the end of the year.

WWF CLIMATE SAVERS

2015-2020 climate targets exceeded

Volvo Group has been part of the WWF Climate Savers since 2010 and was the first automotive company to join. Climate Savers is WWF's leadership program with the objective to recognize corporate leadership on climate solutions. It includes WWF's partners with ambitious strategies to develop net zero business models and demonstrate that reductions in greenhouse gas emissions can go hand in hand with economic growth. Read more on www.climatesavers.org

The Volvo Group's main commitments and targets for climate and energy efficiency in the WWF Climate Savers program:

	PRODUCTION	TRANSPORTS	PRODUCTS
Target	Implement energy savings that from 2020 save 150 GWh per year.	Reduce freight CO_2 emissions per produced unit by 20%.	Achieve life cycle CO_2 emissions savings from products of at least 40 million tons cumulative.
Achieved	 2015 2016 2017 2018 2019 2020 45 85 115 130 170 207 **Target achieved** Since 2015, 1,260 activities have been implemented, that together save 207 GWh per year from 2020.	 2013 // 2016 2017 2018 2019 2020 100 90 91 85 82 76 **Target achieved** Freight emissions per produced unit were 24% lower in 2020 compared to the baseline 2013.	 2015 2016 2017 2018 2019 2020 3 9 5 8 9 9 3 12 17 25 34 43 Annual saving Accumulated **Target achieved** An estimated 43 million tons of CO_2 emissions have been saved 2015 to 2020.
Next step	Implement energy savings of 150 GWh 2021-2025.	Reduce CO_2 emissions from freight transports per produced unit by 30% by 2025, with 2018 as base year.	During 2021, set intermediate Science Based Targets on the way to reach net zero by 2050 at the latest.

Our latest targets have stretched from 2015-2020. During this period, we have made extensive progress on climate awareness. In summary we have:

- Co-chaired the Advisory Group on Sustainable Transport together with United Nations Secretary-General.
- Significantly increased the use of renewable energy in our production and reduced scope 1 and 2 emissions by 35% in five years.
- Commercialized several fuel- and energy-saving solutions for customers.
- Developed electric public transportation routes and solutions in several cities.
- Demonstrated that electrification is viable in city traffic, on construction sites and even for heavy-duty transports.
- Helped to reduce 43 million tons of customers' CO_2 emission. Over the last five years, the key to emission reductions for our customers has been increased fuel efficiency.

Next step – Setting science-based targets for net zero emissions by 2050
The Volvo Group has committed to the Science-Based Targets initiative (SBT) and the Business Ambition for 1.5°C. In this process, interim targets will be set to reach the ambition of net zero value chain emissions by 2050 at the latest.

Details on metrics and targets are on page 155–157. Read more about SBT and our Climate Savers magnifiers on volvogroup.com/climate

RESOURCES

TOWARDS CIRCULARITY AND RESOURCE EFFICIENCY

The world's natural resources are limited and economic activity is rapidly increasing. This means that there are large incentives for rethinking existing production and transportation patterns.

Main connections to UN Sustainable Development Goals

7 AFFORDABLE AND CLEAN ENERGY
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
12 RESPONSIBLE CONSUMPTION AND PRODUCTION

7.3 – Double the rate of energy efficiency
9.4 – Resource-use efficiency and reduced CO_2 per value added
12.2 – Efficient use of natural resources

In order to use resources efficiently, waste and pollution need to be designed out and products and materials kept in the use phase for a longer period of time. At the same time, the transport industry as a whole can make significant improvements in productivity. Today, some estimates show that the average truck in the industry is only using 40–50% of total load capacity. Sharing economy business models, artificial intelligence and machine learning will optimize goods flow and lead to a reduction in transport needs and save valuable natural resources.

The Volvo Group wants to lead by example. We are aiming for our own transport system to be world class. What we learn, we will also offer our customers to contribute to significantly increase efficiency in their transport systems. This means taking advantage of a wide range of opportunities that will result in reduced logistics costs, emissions and wasted resources.

As we focus even more on services, our aim is to increase the sales of total transport solutions. While the traditional transactional sales will remain, we offer different business model setups for different customers depending on their needs. More information on different business models is available on page 21.

VOLVO AUTONOMOUS SOLUTIONS

AUTOMATED INDUSTRIAL TRANSPORT-AS-A-SERVICE

Volvo Autonomous Solutions (VAS) was established as a business area on January 1, 2020. VAS adopts a new business model for the Group that promotes Transport-as-a-Service. To do this VAS develops and commercializes holistic industrial autonomous transport solutions that improve productivity, reduce emissions and improve safety. Thanks to their autonomous nature, these solutions also offer process efficiency benefits and improved site efficiency.

The Volvo Group aims to reduce its environmental footprint by continuous improvements and disruptive innovation – and VAS plays an important part in that work. We believe that electrified and automated commercial vehicles and machines are one part of the solution to create sustainable societies that are also safer and more productive.

VAS is targeting specific industry segments:
- Mines and quarries, industrial materials handling facilities
- Ports and logistics centers
- Hub-to-hub highway transportation.

Creating solutions capable of maximizing transport efficiency through advanced automation is the goal of an entire industry. For VAS, it is likely to happen first in confined areas. One solution is called TARA – a complete transport system designed to operate autonomously within a confined area, like a quarry or a mine. With the TARA solutions a complete software and hardware stack, including the autonomous driving capabilities has been developed. TARA consists initially of the TA15 electric hauler (more variants will follow) and all the charging and supporting infrastructure needed to ensure operations are safe and efficient.

The TARA solution, including the ecosystem for electric and autonomous driving, brings substantial CO_2 reductions. When compared to today's operations it can cut CO_2 by 100% in the hauling part with the TA15 (if using CO_2-neutral electricity) and up to 85% for the complete site.

Assets used ~30% of their life cycles

Up to 50% of total payload theoretically available for more cargo

5–10% of total fuel consumed is used to move goods and materials

Increase efficiency in transport systems
Increasing transport efficiency offers opportunities to add sustainable value beyond fuel consumption and electrification. According to some estimates, assets such as trucks, buses and construction equipment are on average used 30% of their life cycles, and the average truck on the road carries 40–50% of its total capacity. Theoretically up to 50% of the transport is available for more cargo. With this in mind, and the fact that 5–10% of the world's total fuel is consumed to move goods and materials the climate and cost efficiency potential for transports is significant, which can lead to a rapid transformation of the business.

INCREASING PRODUCTIVITY

Focus on uptime

Volvo Group has a broad customer offering of connectivity solutions for trucks, buses and construction equipment. With more than 1,1 million connected customer assets, we have the largest number of connected commercial vehicles and machines in the industry. Connectivity is essential to our goals of increasing efficiency and minimizing environmental impact, as well as making our roads safer.

Connectivity is one of the key technology areas for Volvo Group. Leveraging vehicle data, our solutions enable our customers to lower their costs and to increase their efficiency. Connectivity is also an enabler for Automation and Electromobility – both when it comes to technology and when it comes to services and solutions for these applications. Our solutions will increase transport and resource-efficiency through optimized traffic flows and a higher utilization of existing infrastructure.

RESOURCE EFFICIENCY

STEPS TO INCREASE CIRCULARITY

Volvo Group has identified several business setups to increase circularity. The design phase is critical. We look at five main criteria in the design of new solutions – materials and production, fuel, exhaust emissions, maintenance and end-of-life treatment. For example, avoiding certain materials and substances already in the design phase helps to increase recycling rates of both components and complete vehicles. A typical truck from Volvo can be recycled at around 85% and an excavator to around 95–99% by weight.

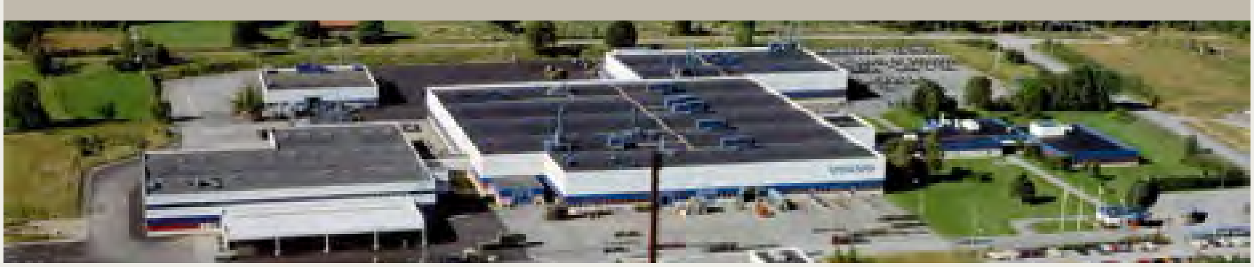
In the production phase, we strive to minimize our CO_2 footprint by increasing energy efficiency and source more renewable energy. In 2020, the Volvo Bus plant in Borås achieved its 100% renewable energy status. Renewable energy accounted for 52% of the Group's total energy consumption in 2020 and the next milestone is to reach 65% by 2025. We also strive to reduce waste and continuously reduce our environmental footprint from our production – read more on page 158.

In the customer use phase, uptime and utilization of products, components and materials are in focus. Service, maintenance, repairs and remanufacturing are key elements in this phase. Volvo Group's products are made to be durable, and components are made to be remanufactured. One example is gearboxes. A remanufactured gearbox can save 50%, and sometimes up to 80%, of resources used compared to a new one. The saving comes from avoiding processing and refining new materials and the associated energy, water and emissions footprint. Our ambition is to increase our reman business by 60% by 2025 from a baseline in 2018.

At the end of the useful service life of components or vehicles, we can recover certain materials which directly become new raw material. One example is the recovery of palladium and platinum from scrapped diesel particulate filters. For trucks, we also buy back complete vehicles to dismantle and use parts in our network of service workshops. Parts that can be refurbished or remanufactured are kept and used and the rest is sent for materials recycling.

Volvo Buses collaborates with Stena Recycling's Battery Loop to reuse batteries for a second life storing renewable energy. When the batteries have served its second life, there is still value left in the battery components and they are recycled by Stena. As electrification accelerates, circularity becomes even more important. In January 2021, the creation of a new business area was announced, Volvo Energy, with the purpose of strengthening business flow of batteries over the life cycle.

The ambition of the Volvo Group is to use the above and additional elements of circularity and reduce environmental footprint of both products and operations. Today, almost 90% of the CO_2 footprint from raw materials comes from steel, iron, aluminum, rubber and plastics, which makes these the focus areas to collaborate around. Our ambition is to include more recycled materials also in the production of new parts. While a significant share of iron and aluminum are already from recycled material, we also collaborate with suppliers to increase the use of recycled plastics.



VOLVO GROUP VENTURE CAPITAL

INVESTMENTS TO DRIVE TRANSFORMATION

In 2020, Volvo Group Venture Capital made minority investments in Adnavem and Flock Freight. Adnavem is an online marketplace for freight services. Adnavem offers unbundled door-to-door transport with a present focus on Asia and Northern Europe. Flock Freight, a technology company based in Solana Beach, California, pools shipments to fill unused trailer space. The company uses algorithms to match multiple LTL (less than a truckload) shipments into one shared truckload that eliminates all terminals and hubs, improving quality and efficiency. The role of Volvo Group Venture Capital is to make investments that drive transformation in our industry by facilitating the creation of new services and solutions and to support collaborations between start-ups and the Volvo Group.

13% FEWER TRANSPORTS

EFFICIENT LOAD OUT

NEW LOADING SERVICE INCREASES PRODUCTIVITY AND REDUCES EMISSIONS

Volvo Trucks and Volvo Construction Equipment have launched a new digital service, called “Efficient Load Out”. It enables the connection of trucks and excavators, which increase efficiency and reduces transport emissions. After running successful field tests, a commercial contract was signed with the construction company NCC – a first for this type of service.

Efficient Load Out was tested in a major infrastructure project in Gothenburg, Sweden in collaboration with NCC. With the digital service, it is possible to secure between 96% and 100% load utilization for each transport, compared to typically 87%. Data shows that 350,000 tons have been excavated and transported in 11,000 trips during the pilot run. The connected process helped reduce the number of trips by 1,600 – and it is expected to save around 8,000 transports once the whole project is completed.

When utilizing the system, the excavator operators and truck drivers start by logging in, and then the system gives the excavator operator a notification when there is a truck available for loading nearby. The truck driver is given a signal to drive to the excavator and start the loading – all whilst the excavator measures the weight of the load. When the weight goal is reached, a signal is sent that loading is complete and the truck can drive to its specific destination. The truck driver gets information about how much tonnage has been loaded, what kind of masses it is and what deposit to unload at.

VOLVO BUSES

Efficient, safe and sustainable public transport

Volvo Buses' Zero City concept includes visions and opportunities to reduce emissions, noise, congestion and accidents. The benefits for local communities are obvious and in addition, Volvo Buses reduces total costs for public transport operators. By using connected solutions, we introduce safety zones with automatic speed limits, we provide valuable insights on planning of routes, when to charge vehicles and when to service and maintain. The effects for the operators are significant, moving towards zero downtime and reduced cost of operations. With this business model, Volvo Buses offers complete solutions to public transportation in cities around the world. Read more on volvobuses.com/zerocity

PEOPLE

STRIVING FOR SAFE ROADS AND WORKPLACES

Safety is a priority in everything we do. We have a vision for zero accidents with Volvo Group products and in our workplaces.

Every year there are more than 1.35 million lives lost and 50 million people injured in road traffic accidents around the world. We work proactively to develop intelligent solutions that not only mitigate the consequences of accidents but strive to avoid them altogether. Our vision is zero fatalities, zero injuries and ultimately zero accidents.

According to the World Health Organization, the cost of road traffic accidents can be up to 3% of global GDP. Therefore, there is a strong focus on safety in the transport and infrastructure industry, as well as from governments around the world. Safety features for vehicles and machine are key, but our work also includes a range of engagements with customers and regulatory bodies, as well as road traffic safety and driver training. Visit volvogroup.com/safety for more information.

With safety, as well as with the environment, we believe in taking a full value chain approach. We work to improve health and safety in our own operations, and we set high standards for our partners in the supply chain. Collaboration, being innovative, life-long learning, challenging the status quo and being curious drives engagement and improvement work. We strive to increase safety in our operations and have targeted to reduce the accident rate on an aggregated level by at least 50% by 2030, compared to 2019.

Safety mindset is also the foundation for health, non-discrimination and other human rights aspects, which there are more details about in the Sustainability Notes on page 150–171.

SAFETY AT CUSTOMERS' SITES

SAFER CONSTRUCTION SITES WITH HAUL ASSIST

Increased automation and connectivity enable improved safety at construction sites. Volvo Haul Assist allows articulated haulers to communicate real-time positions to each other, improving hauler traffic flow on jobsites. In early 2020, Volvo Construction Equipment rolled out a new map feature on the Haul Assist application that allows operators to monitor hauler traffic around a jobsite and proactively adjust their driving according to traffic conditions. This update improves productivity and safety thanks to better communication and monitoring between machines.

SAFETY AT VOLVO GROUP

HEALTH AND SAFETY DURING LOCKDOWNS

Volvo Group were quick to adapt production and make remote work available when the magnitude of the Covid-19 pandemic became evident. The site in Motherwell, UK had already prepared a team of 30 trained mental health first aiders who were able to promptly provide support. Isolation during the pandemic and especially lockdowns can lead to colleagues feeling isolated, reduce engagement and increase anxiety so the site team used social media, text messaging and a telephone line to provide support.

SAFETY FOCUS IN OPERATIONS

For those needing to work on site, significant efforts to maintain safe operations have been put in place around the world. The plant in Vénissieux, near Lyon in France, was one of the first plants to close when the Covid-19 pandemic hit in early 2020 and also one of the first to restart. As part of re-starting operations, strict safety routines were deployed for all personnel with clear instructional videos on protective equipment, hand washing and steps to take if infected. Read more about health and safety management in the Sustainability Notes on page 162–164.

Main connections to UN Sustainable Development Goals

3 GOOD HEALTH AND WELL-BEING | 4 QUALITY EDUCATION | 8 DECENT WORK AND ECONOMIC GROWTH | 11 SUSTAINABLE CITIES AND COMMUNITIES

3.6 – Halving global deaths and injuries from road traffic accidents
4.3 – Access to quality technical and vocational training
8.8 – Safe and secure work environments
11.2 – Safe and sustainable transport systems

VOLVO BUSES ZERO CITY

Focus on vulnerable road users

In urban traffic, driver assistance applications are key to improve road traffic safety. Volvo city buses can be equipped with a high dynamic range camera detecting pedestrians and bicyclists. The driver receives an early warning to be able to take the precautions needed. Zero accidents is one of the pillars of Volvo Buses Zero City concept alongside emissions, noise, congestion, maintenance and other zero visions.

Create your own Zero City in Volvo Buses' simulator at volvobuses.com

VOLVO FM AND VOLVO FMX

10% MORE DIRECT VISIBILITY WITH THE NEW VOLVO FM AND FMX

Continuous improvements through vehicle design and technical features are key to reach zero accidents. The new Volvo FM and Volvo FMX trucks, launched in 2020, feature a lower door line, larger windows, slimmer A-pillars, and improved mirrors, to increase visibility in all directions. In addition, the passenger corner camera monitors the area on the passenger side of the truck. The camera is integrated in the side mirror and activated by the turn indicator or manually using a button under the side display.

VOLVO FH AND VOLVO FH 16

ADAPTIVE HIGH BEAMS INCREASE SAFETY FOR ALL ROAD USERS

Adaptive high beam lights, available for the Volvo FH and Volvo FH 16, improve safety for all road users. When the camera and radar detect that the truck approaches oncoming traffic or another vehicle from behind the segments of the LED high beam directed towards the other vehicles are automatically disabled. The high beam light remains on in all other areas. Read more about our holistic work with road safety on volvogroup.com/safety

GLOBAL MINISTERIAL CONFERENCE ON ROAD SAFETY

Achieving the global goals

In February 2020, the third Global Ministerial Conference on Road Safety was held in Stockholm. Among other Volvo Group contributions, President and CEO Martin Lundstedt held the closing speech on the vision of zero accidents. He pointed out that safe and efficient transports are key in creating prosperity and that the next decade will be about accelerating the sustainable transformation of transports. The Volvo Group will use innovation and business to drive safety developments.

Read more at www.roadsafetysweden.com

#ClaimingOurSpace – Volvo Group Youth Ambassadors
The day before the Global Ministerial Conference room was made for the World Youth Assembly for Road Safety. 200 young leaders from around the world came together with the common purpose of safety by mobilizing and inspiring global youth to take action. Volvo Group was a main partner for this event and were represented by five safety ambassadors who were chosen for their skills and engagement in safety issues. After the event, they continue as advocates for new ways to spread knowledge and take actions to increase road safety.

MISALE

Driver training to increase road safety and employment in Ethiopia

Volvo Group, the Swedish International Development Cooperation Agency (Sida) and United Nations Industrial Development Organization UNIDO have partnered to establish the first vocational training school for the training of trainers and commercial vehicle drivers (CVDs) in Ethiopia to meet the growing demand from private transport companies. The vocational training school will train 40 trainees and 20 trainers each year, in addition to 480 employees from other transport companies who will benefit from short-term skill upgrading training on an annual basis. The project strives to introduce mandatory road safety training, such as defensive driving and awareness campaigns in schools in order to reduce the fatality rates from 65 to 32 per 10,000 registered vehicles in five years' time according to the target of the government. Furthermore, and in collaboration with the Ethiopian Federal Transport Authority, the project will establish standards for the teachers and students' certification and assist other schools to adopt a new curriculum for CVD training based on the success of this new institute.

WE ARE THE VOLVO GROUP

EMPLOYEES

We spend a large part of our life at work. In the Volvo Group, we believe that time should matter. We asked our employees what matters to them and their thoughts can be summarized in one word – purpose. A clear purpose to come back and deliver everyday together with some of the sharpest and most creative brains in their field of work, using the latest technology to leave our society in a better shape for the next generation. They relate to a culture of care, inclusiveness and empowerment where everyone regardless of gender, race, age, abilities or background, can give their very best. They also tell stories about growth opportunities in many dimensions – between entities, geographies and professions. In Volvo Group they not only find a job, but rather a career.

THE VOICES OF FOUR OF OUR PEOPLE

JIE QIU

Rebuild and Repair Workshop Engineer, Volvo Construction Equipment, China

I work for Volvo Construction Equipment China as an engineer in the remanufacturing center. At the remanufacturing center, my colleagues and I conduct rigorous testing of each remanufactured part to ensure it meets the standards of the new part, and the old part will be revitalized after a series of remanufacturing processes. It is important work and I am thrilled when every little screw and nut can be reused, every reusable part turned into a remanufactured item that customers will need. During the seven years working at Volvo, I have really enjoyed the sense of accomplishment brought by my job, and sharing those cheerful moments with my colleagues each time we reach a new target.

RONETTE STONER

Chief Financial Officer, Volvo Autonomous Solutions, Sweden

In 1995 I saw a job advertisement in a local paper for an entry-level position as a financial analyst at Mack Trucks, United States. I applied and got the job. This is how I joined the Volvo Group. Back then, I thought I would need to change companies every two to five years, in order to develop my career. 25 years later, I am still here!

The opportunities in Volvo Group are many and varied. Over the years I've always taken the chance to make a difference and my efforts were recognized. My latest career move was earlier this year in Sweden taking up the position of Chief Financial Officer for Volvo Autonomous Solutions, a new Volvo Group company launched in January 2020. It is thrilling to be part of a company that will transform our society with efficient, sustainable and safe autonomous solutions.

At times it felt lonely when I was the only woman in the room, but I never felt that I counted less. It is very important for me to pay it forward, so I am an active coach and mentor to both women and men, helping them to grow into leadership positions. Making a difference is what gives me meaning and purpose every day.

Volvo Group employs almost 100,000 people across the world and several additional thousands are connected to the Group via partnerships, such as sales channels and supply chains. A positive working environment builds on mutual respect, free from all forms of discrimination and harassment among colleagues and between company representatives and business partners. We continue our work to develop safe and attractive working conditions, good relations between management and employee representatives, equal opportunities and lifelong career development and training. See detailed reporting on the topics above in the Sustainability Notes on pages 159–166.

In October the Great Place to Work® Institute and Fortune revealed their annual list of the 25 World's Best Workplaces that stand out for creating globally exceptional employee experiences, high-trust relationships, and workplaces that are fair and equal for all. Volvo Group was selected out of over 10,000 organizations that participated in the survey process, representing the voices of 10.2 million employees in 92 countries. Its winning culture thrives on fostering strong connections and meaningful work.

Read more at volvogroup.com/career

CHRISTIAN DE JESUS CAMILO

Factory Operator, Volvo Buses, Brazil

I started working at Volvo as an apprentice. The work environment, the relationships we establish with people, the opportunities for development that I have are things that makes me come to work and want to develop more every day.

Our work culture contributes a lot to our development and inspires us to carry on with our activities with dedication and passion. On top of that, we have several leisure and entertainment programs that are essential for our health and well-being.

If I were to describe my working environment, I would say that we all have a clear definition of what we should perform on a daily basis, but we are also free to express our opinion and suggest improvements. We feel our individual and collective importance for the Volvo Group, which means that the teams are engaged in producing with quality and safety in favor of the same objectives, that being the success of customers.

MARIA KALIMANJIRA

Competence Sourcing Manager, Group Trucks Operations, Sweden

The best thing about working at Volvo Group is the diversity, which I think is beneficial to our business and increases the commitment of employees. Here at the Volvo Group plant in Tuve, we have colleagues with different backgrounds and skills – you can be yourself and everyone is equally welcome. There are many career paths within the company, and I think the importance of inclusion is becoming more and more clear. It is a prerequisite in order for us to move forward together, and strengthens both passion and loyalty.

My work is challenging, varied and the collaboration with colleagues is good. My main task is to work with competence flexibility and build bridges by allowing employees to develop and increase their competence, for instance by working in other departments, internally as well as externally. The goal is also to inspire people to develop further within the company.

SIGNIFICANT EVENTS

SIGNIFICANT EVENTS PUBLISHED IN QUARTERLY REPORTS IN 2020

Important truck launches in the first quarter

In January, Mack Trucks launched new, medium-duty models for the North American market. These new products will meet the needs of trucking applications requiring dry van/refrigerated, stake/flatbed, dump and tank truck vocations.

In February, Volvo Trucks launched four new trucks, with a strong focus on the driver environment, safety and productivity. The four heavy-duty trucks; Volvo FH, FH16, FM and FMX, normally represent about two thirds of Volvo Trucks' deliveries. As a result of the Covid-19 pandemic, the launch was subsequently postponed until the autumn of 2020.

Update on the impact from Covid-19 on the Volvo Group

On March 16, the Volvo Group issued a press release stating that the consequences of the Covid-19 outbreak were affecting the Volvo Group and that there was a considerable risk of a material financial impact on the Group as from mid-March.

AB Volvo's Board of Directors withdrew proposal of extra dividend, maintained ordinary dividend

On March 19, the Volvo Group announced that in light of the general uncertainty and the measures taken to slow down the spread of Covid-19 and their effects on the Volvo Group, the Board of Directors of AB Volvo had decided to maintain the proposal to the Annual General Meeting on April 8, 2020 of an ordinary dividend of SEK 5.50 per share, but to withdraw the proposal of an extra dividend of SEK 7.50 per share.

Volvo provided an update on the situation in respect of Covid-19 and postponed the Annual General Meeting

On March 25, it was announced that the Board of Directors of AB Volvo had decided to postpone the Annual General Meeting given the uncertain and accelerating developments in the wake of Covid-19. The press release stated that "In recent days, a number of government authorities around the world have continued to introduce measures that directly impact the Volvo Group's operations and customers. These decisions include closing borders, minimizing freedom of movement for citizens and closing businesses. Most of the Group's manufacturing plants are currently closed and employees in several countries have been temporarily laid off. Recent developments have a direct effect on economies important for the Volvo Group and the assessment is that the prevailing situation will lead to weaker demand for the Group's products and services. As already indicated, this will have a material negative effect on the Group's financial development. In light of the above, the Board of Directors of AB Volvo has decided to postpone the Annual General Meeting in order to give the company and the Board a better opportunity to further evaluate the situation."

Subsequently it was decided that the Annual General Meeting was to be held on June 18, 2020 in Gothenburg, Sweden.

The Volvo Group and Daimler Truck AG to lead the development of sustainable transportation by forming joint venture for large-scale production of fuel cells

Sharing the Green Deal vision of sustainable transport and a carbon neutral Europe by 2050, two leading companies in the commercial vehicle industry, Daimler Truck AG and the Volvo Group, on April 21, signed a preliminary non-binding agreement to establish a new joint venture. The intention is to develop, produce and commercialize fuel cell systems for heavy-duty vehicle applications and other use cases. Daimler will consolidate all its current fuel cell activities in the joint venture. The Volvo Group will acquire 50% in the joint venture for the sum of approximately EUR 0.6 billion on a cash and debt free basis. A final agreement was signed in November and closing of the transaction is expected during the first half of 2021. The transaction is subject to merger control review by relevant authorities, as well as other approvals.

AB Volvo's Election Committee revised its proposal to the AGM on remuneration to the Board

On May 12, the Election Committee of AB Volvo proposed that the remuneration to the Board members of AB Volvo for the coming year should be the same as decided in 2019.

AB Volvo's Board of Directors withdrew proposal for ordinary dividend

On May 12, the Board of Directors of AB Volvo decided to withdraw the proposal to the Annual General Meeting for an ordinary dividend of SEK 5.50 per share and instead proposed that no dividend for 2019 would be paid. The Volvo Group has a strong financial position. However, there was a general uncertainty created by Covid-19 and the effects on the Volvo Group from the measures taken in various countries to slow down the spread of the virus. As an effect the Board believed that it was appropriate, as a precautionary measure, to withdraw the dividend proposal.

Heléne Mellquist new President Volvo Penta

On June 9, Heléne Mellquist was appointed President of Volvo Penta and new member of Volvo Group Management. On September 1, she replaced Björn Ingemanson, who after a long and successful career retired. Heléne Mellquist, born in 1964, previously held the position of President of the European Division at Volvo Trucks.

The Volvo Group took measures to reduce cost and accelerate transformation
On June 16, it was announced that the Covid-19 crisis was expected to have a negative effect on economic activity in many of the Volvo Group's major markets in the short and medium term. Volvo continuously adjusted its operations to lower demand from record levels in the first half of 2019 by utilizing the installed flexibility, while at the same time accelerating the transformation towards sustainable transport solutions. As the next step, the Volvo Group announced a reduction of the white-collar workforce globally by approximately 4,100 positions starting in the second half of 2020.

Annual General Meeting of AB Volvo
AB Volvo held its Annual General Meeting on June 18, 2020. Due to the extraordinary situation as a result of the Covid-19 pandemic, the Meeting was carried out through postal voting, without any physical attendance. Among other things, the Annual General Meeting adopted the income statement and balance sheet as well as the consolidated income statement and the consolidated balance sheet. The Meeting resolved that no payment of dividend will be made and that the entire amount available will be carried forward. The Board Members, Board Deputies and the President were discharged from liability for their administration during the 2019 fiscal year. Matti Alahuhta, Eckhard Cordes, Eric Elzvik, James W. Griffith, Martin Lundstedt, Kathryn V. Marinello, Martina Merz, Hanne de Mora, Helena Stjernholm and Carl-Henric Svanberg were reelected as members of the Board. Kurt Jofs was elected as new member of the Board. Carl-Henric Svanberg was reelected as Chairman of the Board. A remuneration policy for senior executives was adopted in accordance with the Board of Directors' motion. The Annual General Meeting adopted a proposal from the Board of Directors concerning amendments to the Articles of Association, whereby a new section is inserted in the Articles of Association allowing the Board to collect powers of attorney in accordance with the procedure described in Chapter 7, section 4 of the Companies Act and allowing the Board to decide that shareholders shall have the right to provide their votes before a General Meeting. The Meeting further resolved to adopt the Board of Directors' proposal to reduce the share capital by way of cancellation of the company's approximately 95 million own shares and an increase of the share capital by way of a bonus issue in order to restore the share capital.

Jens Holtinger new head of Volvo Group's global truck production
On September 10, Jens Holtinger was appointed head of Volvo Group's global truck production organization and member of the Volvo Executive Board. On October 1, he replaced Jan Ohlsson, who after a long and successful career retired.

Final agreements to form strategic alliance with Isuzu Motors
In October, the Volvo Group and Isuzu Motors signed binding agreements to form a strategic alliance within commercial vehicles in accordance with the Memorandum of Understanding signed in December 2019. The agreements include Isuzu Motor's acquisition of UD Trucks from the Volvo Group for an enterprise value of JPY 243 billion (approx. SEK 20 billion). Closing is expected during the first half of 2021. The transaction is subject to certain conditions, including approval from regulatory authorities.

Binding agreement with Daimler Truck AG for new fuel-cell joint venture
In November, the Volvo Group and Daimler Truck AG signed a binding agreement for a joint venture to develop, produce and commercialize fuel-cell systems for use in heavy-duty trucks as the primary focus, as well as other applications. The Volvo Group will acquire 50% of the partnership interests in Daimler Truck Fuel Cell GmbH & Co. KG for approximately EUR 0.6 billion on a cash and debt-free basis. Closing of the transaction is expected during the first half of 2021. The transaction is still subject to merger control review by relevant authorities, as well as other approvals.

A complete range of electric trucks from Volvo Trucks
In November, Volvo Trucks announced that in 2021 hauliers in Europe will be able to order all-electric versions of Volvo's heavy-duty trucks. This means that Volvo Trucks will offer a complete heavy-duty range with electric drivelines starting in Europe.

Green Finance Framework and Science Based Targets
In November, Volvo Group launched a Green Finance Framework for the financing of investments and projects in the area of clean transportation. The framework is classified as Dark Green by the Center for International Climate and Environmental Research (CICERO Shades of Green). The Volvo Group also took the next step in adjusting and future-proofing the company in line with the ambitions of the Paris Climate Agreement. In order to be transparent on its progress towards becoming a net-zero emissions company by 2050 at the very latest, the Volvo Group committed to the Science Based Targets initiative.

Anna Westerberg new President of Volvo Buses
In January 2021, Anna Westerberg, head of Volvo Group Connected Solutions, was appointed President of Volvo Buses and member of Volvo Group Management. She assumed her new position on February 1.

The Volvo Group creates business area dedicated to accelerating electrification
On January 28, 2021 the Volvo Group announced that it creates a new business area dedicated to accelerating electrification. The business area, Volvo Energy, will strengthen the Volvo Group's business flow of batteries over the life cycle as well as the customer offer for charging infrastructure. Starting in February 2021, Joachim Rosenberg, member of the Volvo Group Executive Board and Chairman of UD Trucks, heads the new business area. ■

FINANCIAL PERFORMANCE

LOWER SALES IMPACTED PROFITABILITY

For the Volvo Group, 2020 was a year with lower sales volumes and operating income than the preceding year.

INCOME STATEMENTS VOLVO GROUP

		Industrial Operations		Financial Services		Eliminations		Volvo Group	
SEK M		**2020**	2019	**2020**	2019	**2020**	2019	**2020**	2019
Net sales	Note 6, 7	**326,472**	**418,361**	**13,960**	**14,870**	**–1,987**	**–1,252**	**338,446**	**431,980**
Cost of sales[1]		–252,933	–317,763	–8,375	–9,091	1,989	1,252	–259,319	–325,603
Gross income		**73,539**	**100,598**	**5,586**	**5,779**	**2**	**–**	**79,127**	**106,377**
Research and development expenses		–16,798	–18,539	–	–	–	–	–16,798	–18,539
Selling expenses[1]		–24,284	–31,775	–2,226	–2,554	–	–	–26,510	–34,329
Administrative expenses		–4,611	–5,887	–9	–13	–	–	–4,621	–5,901
Other operating income and expenses	Note 8	–3,673	230	–1,786	–445	–	–6	–5,459	–221
Income/loss from investments in joint ventures and associated companies	Note 5, 6	1,749	1,859	–	–	–	–	1,749	1,859
Income/loss from other investments		–4	285	0	0	–	–	–3	285
Operating income		**25,919**	**46,771**	**1,564**	**2,766**	**2**	**–6**	**27,484**	**49,531**
Interest income and similar credits		372	600	–	–	–73	–280	299	320
Interest expenses and similar charges		–1,422	–1,953	0	0	73	280	–1,349	–1,674
Other financial income and expenses	Note 9	–518	–1,346	–	–	–	–	–518	–1,345
Income after financial items		**24,351**	**44,071**	**1,564**	**2,767**	**2**	**–6**	**25,917**	**46,832**
Income taxes	Note 10	–5,439	–9,650	–404	–688	0	1	–5,843	–10,337
Income for the period		**18,912**	**34,422**	**1,160**	**2,079**	**2**	**–5**	**20,074**	**36,495**
Attributable to:									
Owners of AB Volvo								19,318	35,861
Non-controlling interest								755	635
								20,074	**36,495**
Basic earnings per share, SEK	Note 19							9.50	17.64
Diluted earnings per share, SEK	Note 19							9.50	17.64

1 The comparative financial information is restated between Cost of sales and Selling expenses. For more information, please see note 31.

OTHER COMPREHENSIVE INCOME

SEK M		**2020**	2019
Income for the period		**20,074**	**36,495**
Items that will not be reclassified to income statement:			
Remeasurement of defined benefit pension plans	Note 20	–1,901	–2,969
Remeasurement of holding of shares at fair value	Note 19	–6	10
Items that may be reclassified subsequently to income statement:			
Exchange differences on translation of foreign operations		–9,741	2,616
Share of Other comprehensive income related to joint ventures and associated companies		–939	252
Accumulated translation difference reversed to income		–50	–
Other comprehensive income, net of income taxes		**–12,637**	**–91**
Total comprehensive income for the period		**7,437**	**36,403**
Attributable to:			
Owners of AB Volvo		6,895	35,738
Non-controlling interest		542	665
		7,437	**36,403**

Net sales

During 2020, net sales decreased by 22% to SEK 338 billion (432). Adjusted for currency movements the decrease was 18%.

Vehicle sales decreased by 23% adjusted for currency movements. Sales were lower in all business areas as a consequence of the measures to mitigate the Covid-19 pandemic affecting customer demand, primarily in the spring. Service sales decreased by 4% adjusted for currency as a sharp drop in the utilization of vehicles and machines during the first half of the year. This was followed by a strong rebound when measures such as lockdowns were eased in many markets.

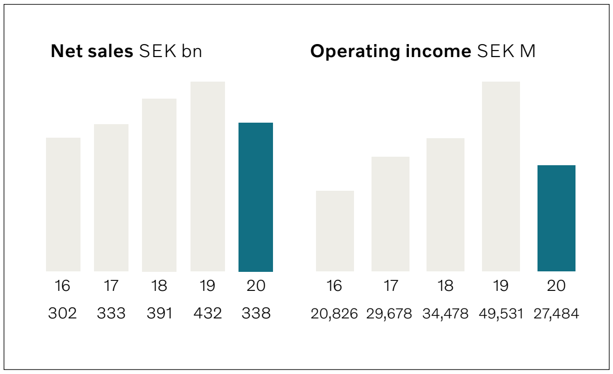
Net sales in Trucks decreased by 21% adjusted for currency movements, as a consequence of lower deliveries in all main markets. For Construction Equipment currency-adjusted net sales decreased by 5% as an increase in volumes was offset by a negative product and market mix. Buses' net sales decreased by 33% adjusted for currency movements, primarily because of a steep drop in demand for coaches and related service sales. Net sales for Volvo Penta went down by 8% currency adjusted as increased service sales could not fully compensate for a drop in the sales of engines.

The Volvo Group's sales of defense material, as defined in the Swedish Military Equipment Ordinance (1992:1303) section A, amounted in 2020 to 0.93% (0.51) of net sales.

Operating income

In 2020, the global Covid-19 pandemic presented the Volvo Group with challenges that was unprecedented in modern times. The adjusted operating income amounted to SEK 28.6 billion (47.9), corresponding to an adjusted operating margin of 8.4% (11.1). The decrease in earnings was primarily an effect of lower vehicle volumes and lower capacity utilization in the industrial system as well as a negative product and market mix, residual value write-downs and higher credit provision expenses. This was partly offset by lower selling and administrative expenses as well as lower research and development expenses. Adjusted operating income included various governmental short-terms layoff programs amounting to SEK 2.2 billion and a positive effect of SEK 604 M from a correction of actuarial calculations of the Group's pension liabilities.

Adjusted operating income excludes restructuring charges related to headcount reductions of SEK 2.2 billion and a positive effect from ceased depreciation and amortization on assets held for sale of SEK 1.1 billion. In 2019 adjusted operating income excluded a capital gain of SEK 1.6 billion from the sale of shares in WirelessCar. Reported operating income amounted to SEK 27.5 billion (49.5).



Net sales by operating segment, SEK M	**2020**	2019	%
Trucks	208,262	276,647	–25
Construction Equipment	81,453	88,606	–8
Buses	19,791	31,019	–36
Volvo Penta	11,891	13,287	–11
Group Functions & Other	7,870	12,287	–36
Eliminations	–2,796	–3,484	–
Industrial Operations	**326,472**	**418,361**	**–22**
Financial Services	13,960	14,870	–6
Reclassifications and eliminations	–1,987	–1,252	–
Volvo Group[1]	**338,446**	**431,980**	**–22**

1 Adjusted for changes in currency rates and acquired and divested operations, net sales decreased by 18%.

Net sales by market area, SEK M	**2020**	2019	%
Europe	130,457	158,985	–18
North America	76,501	125,855	–39
South America	20,133	29,739	–32
Asia	80,088	78,914	1
Africa and Oceania	19,293	24,869	–22
Total Industrial Operations	**326,472**	**418,361**	**–22**
Of which:			
Vehicles	247,397	332,558	–26
Services	79,075	85,804	–8

Adjusted operating income by operating segment, SEK M	**2020**	2019
Trucks	17,251	31,552
Construction Equipment	10,071	11,910
Buses	–445	1,337
Volvo Penta	1,448	1,876
Group Functions & Other	–1,382	–1,510
Eliminations	12	–14
Industrial Operations	**26,955**	**45,150**
Financial Services	1,606	2,766
Reclassifications and eliminations	2	–6
Volvo Group adjusted operating income	**28,564**	**47,910**
Adjustments[1]	–1,081	1,621
Volvo Group operating income	**27,484**	**49,531**

1 For more information on adjusted operating income, please see section for Key ratios.

Adjusted operating margin, %	**2020**	2019
Trucks	8.3	11.4
Construction Equipment	12.4	13.4
Buses	–2.2	4.3
Volvo Penta	12.2	14.1
Industrial Operations	**8.3**	**10.8**
Volvo Group adjusted operating margin	**8.4**	**11.1**
Volvo Group operating margin	**8.1**	**11.5**

Change in operating income, Volvo Group SEK bn	Change (excluding currency)	Currency impact	Total
Operating income 2019			**49.5**
Change in gross income Industrial operations	–23.1	–4.0	–27.1
Change in gross income Financial Services	0.2	–0.4	–0.2
Higher credit losses	–0.9	0.1	–0.8
Gain on sale of in-/tangible assets	–0.7	0.0	–0.7
Lower capitalization of development cost	–1.4	0.0	–1.4
Lower research and development expenses	3.0	0.2	3.2
Lower selling and administrative expenses	6.9	0.9	7.8
Sale of WirelessCar 2019	–1.6	0.0	–1.6
Depreciation of Assets held for sale	1.1	0.0	1.1
Income from investments in joint ventures and associated companies	–0.1	0.0	–0.1
Volvo profit sharing program	0.6	0.0	0.6
Restructuring costs[1]	–2.5	0.0	–2.5
Other	–0.3	0.0	–0.3
Operating income 2020	**–18.8**	**–3.2**	**27.5**

1 Including costs of SEK 2.2 bn related to headcount reductions.

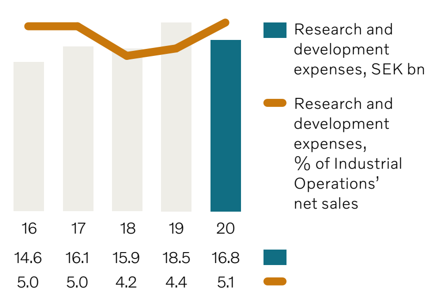
Impact of exchange rates on operating income, Volvo Group, Compared with preceding year, SEK M	
Net sales[1]	–14,768
Cost of sales	10,396
Research and development expenses	170
Selling and administrative expenses	899
Other	115
Total effect of changes in exchange rates on operating income	**–3,188**

1 The Volvo Group sales are reported at monthly average rates.

Key operating ratios, Industrial Operations, %	**2020**	2019
Gross margin	22.5	24.0
Research and development expenses as percentage of net sales	5.1	4.4
Selling expenses as percentage of net sales	7.4	7.6
Administrative expenses as percentage of net sales	1.4	1.4
Operating margin	**7.9**	**11.2**

Expenses by nature, SEK M	**2020**	2019
Material cost (freight, distribution, warranty) and purchased services	209,444	271,021
Personnel	53,788	64,191
Amortization/depreciation	20,599	20,585
Other	23,417	28,574
Total	**307,247**	**384,371**

Research and development expenses



Impact of exchange rates on operating income

Operating income for 2020 in the Volvo Group was negatively impacted by approximately SEK –3.2 billion from changes in exchange rates. The negative impact was related to net flows in foreign currency by SEK –1.5 billion, revaluation of receivables and liabilities by SEK 0.3 billion and translation of operating income in foreign subsidiaries by SEK –2.0 billion.

The net flows in foreign currency were negatively impacted by the depreciation of USD, ZAR and NOK, partly offset by a positive impact from the depreciation of KRW.

» **Read more in Note 4** Goals and policies in financial risk management regarding Industrial Operations transaction exposure from operating net flows, graph 4:5, as well as currency impact on sales and operating income.

Net financial items

In 2020 interest income was on par with the previous year and amounted to SEK 0.3 billion. Interest expenses decreased and amounted to SEK 1.3 billion (1.7). The decrease primarily relates to the effect from the repayment of the first tranche of the hybrid bond in June 2020. Other financial income and expenses amounted to SEK –0.5 billion (–1.3). The change compared to 2019 was primarily related to unrealized revaluation and realized result on derivatives.

» **Read more in Note 9** Other financial income and expenses.

Income taxes

The tax expense for the year amounted to SEK 5.8 billion (10.3) corresponding to an effective tax rate of 23% (22).

Income for the period and earnings per share

In 2020 the income for the period amounted to SEK 20,074 M (36,495). Earnings per share amounted to SEK 9.50 (17.64) and diluted earnings per share to SEK 9.50 (17.64). Return on total equity was 13.8% (27.0). ■

FINANCIAL POSITION

CONTINUED STRENGTHENED FINANCIAL POSITION

Balance sheet

Total assets in the Volvo Group amounted to SEK 510.8 billion as of December 31, 2020, a decrease of SEK 14.0 billion compared to year-end 2019. Currency effects from revaluation of assets in foreign subsidiaries decreased total assets by SEK 41.9 billion. Adjusted for currency effects total assets increased by SEK 27.9 billion. The increase was mainly in cash and cash equivalents due to the positive operating cash flow and amounted to SEK 23.7 billion.

» **Read more in Note 15** Customer-financing receivables.
» **Read more in Note 17** Inventories.
» **Read more in Note 18** Cash and cash equivalents.

The net value of assets and liabilities held for sale increased by SEK 0.7 billion during the year and amounted to SEK 23.0 billion, mainly related to the intention to transfer ownership of the complete UD Trucks business globally to Isuzu Motors.

» **Read more in Note 3** Acquisitions and divestments of shares and operations, regarding assets and liabilities held for sale.

Investments in joint ventures and associated companies increased by SEK 0.2 billion during the year, mainly driven by the profits in Dongfeng Commercial Vehicle Co. Ltd.

» **Read more in Note 5** Investments in joint ventures, associated companies and other shares and participations.

The net value of assets and liabilities related to pensions and similar obligations amounted to a liability of SEK 16.7 billion as of December 31, 2020, a decrease of SEK 1.6 billion compared to year-end 2019.

» **Read more in Note 20** Provisions for post-employment benefits.

On December 31, 2020 the total equity for the Volvo Group amounted to SEK 148.1 billion compared to SEK 141.7 billion at year-end 2019. The equity ratio was 29.0% (27.0). On the same date the equity ratio in the Industrial Operations amounted to 35.8% (33.1).

Net financial position

In 2020, net financial assets in the Volvo Group's Industrial Operations, excluding provisions for post-employment benefits and lease liabilities, increased by SEK 12.1 billion resulting in a net financial asset position of SEK 74.7 billion on December 31, 2020. The change was mainly an effect of a positive operating cash flow of SEK 18.5 billion, which was partly offset by a dividend to shareholders with non-controlling interest of SEK 0.8 billion and negative currency movements of SEK 2.2 billion.

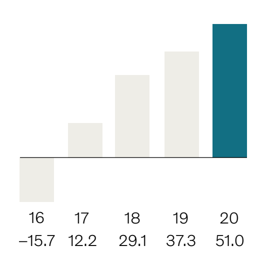
Including provisions for post-employment benefits and lease liabilities the Industrial Operations had net financial assets of SEK 51.0 billion. Provisions for post-employment benefits and lease liabilities decreased by SEK 1.6 billion. This was mainly due to pension payments of SEK 3.6 billion and positive currency movements of SEK 1.3 billion, offset by an increase in remeasurements of defined benefit pension plans of SEK 0.1 billion. The increase in remeasurements was primarily an effect of significantly lower interest rates, which were partly offset by higher return on assets. A correction of actuarial calculations has increased pension liabilities by SEK 1.1 billion.

» **Read more in Note 20** Provisions for post-employment benefits.

The Volvo Group's cash and cash equivalents amounted to SEK 85.2 billion on December 31, 2020, an increase of SEK 23.7 billion as an effect of the positive operating cash flow. In addition to this, granted but unutilized credit facilities amounted to SEK 41.6 billion (43.0), whereof SEK 5.5 billion will expire in 2022, SEK 1.0 billion in 2023, SEK 15.0 billion in 2024 and SEK 20.1 billion in 2025. Cash and cash equivalents include SEK 2.5 billion (2.4) that is not available to use by the Volvo Group and SEK 11.0 billion (9.1) where other limitations exist, mainly in countries where exchange controls or other legal restrictions apply.

» **Read more in Note 18** Cash and cash equivalents.
» **Read more in Note 22** Liabilities, regarding the maturity structure on credit facilities.

Net financial position, incl. provisions for post-employment benefits and lease liabilities, Industrial Operations SEK bn



BALANCE SHEET VOLVO GROUP – ASSETS

SEK M		Industrial Operations Dec 31 2020	Industrial Operations Dec 31 2019	Financial Services Dec 31 2020	Financial Services Dec 31 2019	Eliminations Dec 31 2020	Eliminations Dec 31 2019	Volvo Group Dec 31 2020	Volvo Group Dec 31 2019
Assets									
Non-current assets									
Intangible assets	Note 12	34,423	36,467	154	202	–	–	34,577	36,668
Tangible assets	Note 13								
Property, plant and equipment		48,985	53,348	68	86	–	–	49,053	53,433
Investment property		60	63	–	–	–	–	60	63
Assets under operating leases		29,460	33,794	19,155	22,602	–10,653	–13,070	37,962	43,326
Financial assets									
Investments in joint ventures and associated companies	Note 5	13,160	12,955	–	–	–	–	13,160	12,955
Other shares and participations	Note 5	262	139	15	19	–	–	276	158
Non-current customer-financing receivables	Note 15	1,061	896	70,773	72,115	–1,287	–1,127	70,547	71,883
Net pension assets	Note 20	1,712	1,663	–	–	–	–	1,712	1,663
Non-current interest-bearing receivables	Note 16	4,603	815	–	120	–410	–120	4,193	815
Other non-current receivables	Note 16	9,228	8,927	157	220	–815	–703	8,569	8,444
Deferred tax assets	Note 10	9,505	12,261	1,089	979	1	1	10,595	13,242
Total non-current assets		**152,458**	**161,327**	**91,411**	**96,342**	**–13,164**	**–15,019**	**230,705**	**242,650**
Current assets									
Inventories	Note 17	47,273	56,080	352	564	–	–	47,625	56,644
Current receivables									
Customer-financing receivables	Note 15	635	675	58,096	71,299	–746	–875	57,985	71,099
Tax assets		1,659	1,287	528	511	–	–	2,187	1,797
Interest-bearing receivables	Note 16	1,698	4,102	4	345	–15	–2,518	1,686	1,929
Internal funding[1]		10,925	21,283	–	–	–10,925	–21,283	–	–
Accounts receivables	Note 16	34,278	35,827	1,383	1,896	–	–	35,660	37,723
Other receivables	Note 16	17,105	17,835	1,361	1,616	–3,208	–889	15,258	18,562
Marketable securities	Note 18	213	200	–	0	–	–	213	200
Cash and cash equivalents	Note 18	81,973	57,475	4,680	4,999	–1,448	–1,014	85,206	61,461
Assets held for sale	Note 3	29,362	28,427	4,934	4,345	–	–	34,296	32,773
Total current assets		**225,121**	**223,190**	**71,337**	**85,576**	**–16,342**	**–26,578**	**280,116**	**282,187**
Total assets		**377,579**	**384,517**	**162,748**	**181,917**	**–29,506**	**–41,597**	**510,821**	**524,837**

1 Internal funding is internal lending from Industrial Operations to Financial Services.

BALANCE SHEET VOLVO GROUP – EQUITY AND LIABILITIES

		Industrial Operations		Financial Services		Eliminations		Volvo Group	
SEK M		**Dec 31 2020**	Dec 31 2019	**Dec 31 2020**	Dec 31 2019	**Dec 31 2020**	Dec 31 2019	**Dec 31 2020**	Dec 31 2019
Equity and liabilities									
Equity attributable to owners of AB Volvo	Note 19	132,280	124,067	13,018	14,533	–3	–5	145,295	138,595
Non-controlling interest	Note 11	2,847	3,083	–	–	–	–	2,847	3,083
Total equity		**135,127**	**127,150**	**13,018**	**14,533**	**–3**	**–5**	**148,142**	**141,678**
Non-current provisions									
Provisions for post-employment benefits	Note 20	18,282	19,850	148	138	–	–	18,430	19,988
Provisions for deferred taxes	Note 10	1,166	1,667	2,099	2,676	–	–	3,265	4,343
Other provisions	Note 21	10,217	13,965	238	220	464	401	10,918	14,585
Total non-current provisions		**29,664**	**35,482**	**2,484**	**3,034**	**464**	**401**	**32,612**	**38,916**
Non-current liabilities									
Bond loans	Note 22	66,391	65,754	–	–	–	–	66,391	65,754
Other loans	Note 22	18,053	19,871	11,905	16,956	–1,182	–965	28,775	35,862
Internal funding[1]		–58,839	–60,635	59,412	61,660	–573	–1,025	–	–
Other liabilities	Note 22	38,094	43,602	1,371	1,850	–8,041	–9,141	31,424	36,311
Total non-current liabilities		**63,699**	**68,592**	**72,687**	**80,466**	**–9,796**	**–11,131**	**126,590**	**137,927**
Current provisions	Note 21	**12,411**	**11,424**	**225**	**172**	**517**	**312**	**13,153**	**11,907**
Current liabilities									
Bond loans	Note 22	30,904	31,759	–	–	–	–	30,904	31,759
Other loans	Note 22	17,055	12,675	10,968	14,567	–669	–2,866	27,354	24,377
Internal funding[1]		–38,547	–37,098	51,050	59,266	–12,503	–22,169	–	–
Trade payables		59,013	66,590	598	276	–	–	59,611	66,866
Tax liabilities		3,885	2,920	714	573	–	–	4,599	3,493
Other liabilities	Note 22	57,730	59,097	6,354	4,543	–7,515	–6,139	56,569	57,502
Liabilities held for sale	Note 3	6,638	5,927	4,649	4,486	–	–	11,286	10,413
Total current liabilities		**136,678**	**141,870**	**74,333**	**83,712**	**–20,688**	**–31,174**	**190,324**	**194,410**
Total equity and liabilities		**377,579**	**384,517**	**162,748**	**181,917**	**–29,506**	**–41,597**	**510,821**	**524,837**

1 Internal funding is internal lending from Industrial Operations to Financial Services.

Net financial position excl. post-employment benefits and lease liabilities	Industrial Operations		Volvo Group	
SEK M	**Dec 31 2020**	Dec 31 2019	**Dec 31 2020**	Dec 31 2019
Non-current interest-bearing assets				
Non-current customer-financing receivables	–	–	70,547	71,883
Non-current interest-bearing receivables	4,603	815	4,193	815
Current interest-bearing assets				
Customer-financing receivables	–	–	57,985	71,099
Interest-bearing receivables	1,698	4,102	1,686	1,929
Internal funding	10,925	21,283	–	–
Marketable securities	213	200	213	200
Cash and cash equivalents	81,973	57,475	85,206	61,461
Assets held for sale	1	–	4,671	4,146
Total interest-bearing financial assets	**99,414**	**83,874**	**224,501**	**211,533**
Non-current interest-bearing liabilities				
Bond loans	–66,391	–65,754	–66,391	–65,754
Other loans	–13,575	–14,504	–24,341	–30,528
Internal funding	58,839	60,635	–	–
Current interest-bearing liabilities				
Bond loans	–30,904	–31,759	–30,904	–31,759
Other loans	–15,489	–10,899	–25,802	–22,621
Internal funding	38,547	37,098	–	–
Liabilities held for sale	4,255	3,906	–45	–
Total interest-bearing financial liabilities excl. lease liabilities	**–24,718**	**–21,278**	**–147,483**	**–150,662**
Net financial position excl. post-employment benefits and lease liabilities	**74,696**	**62,596**	**77,018**	**60,871**

Provisions for post-employment benefits and lease liabilities, net	Industrial Operations		Volvo Group	
SEK M	**Dec 31 2020**	Dec 31 2019	**Dec 31 2020**	Dec 31 2019
Non-current lease liabilities	–4,477	–5,366	–4,434	–5,334
Current lease liabilities	–1,567	–1,776	–1,552	–1,755
Provisions for post-employment benefits, net	–16,570	–18,187	–16,717	–18,325
Liabilities held for sale	–1,123	–	–1,127	–
Provisions for post-employment benefits and lease liabilities, net	**–23,737**	**–25,329**	**–23,830**	**–25,414**

Net financial position incl. post-employment benefits and lease liabilities	Industrial Operations		Volvo Group	
SEK M	**Dec 31 2020**	Dec 31 2019	**Dec 31 2020**	Dec 31 2019
Net financial position excl. post-employment benefits and lease liabilities	74,696	62,596	77,018	60,871
Provisions for post-employment benefits and lease liabilities, net	–23,737	–25,329	–23,830	–25,414
Net financial position incl. post-employment benefits and lease liabilities	**50,959**	**37,267**	**53,188**	**35,457**

Changes in net financial position, Industrial Operations		
SEK bn	**2020**	2019
Net financial position excl. post-employment benefits and lease liabilities at the end of previous period	62.6	43.9
Operating cash flow	18.5	38.3
Investments and divestments of shares, net	−0.5	0.1
Acquired and divested operations, net	0.4	1.3
Capital injections to/from Financial Services	0.0	1.3
Currency effect	−2.2	−0.6
Dividend to owners of AB Volvo	–	−20.3
Dividend to non-controlling interest	−0.8	0.0
Other changes	−3.3	−1.4
Net financial position excl. post-employment benefits and lease liabilities at the end of period	**74.7**	**62.6**
Provisions for post-employment benefits and lease liabilities at the end of previous period	**−25.3**	**−14.8**
Transition effect IFRS 16	–	−6.1
Provisions for post-employment benefits and lease liabilities after transition effect IFRS 16 at the beginning of period	**−25.3**	**−20.9**
Pension payments, included in operating cash flow	3.6	2.6
Remeasurements of defined benefit pension plans[1]	−1.8	−3.6
Service costs and other pension costs[2]	−1.6	−2.3
Investments and amortizations of lease contracts	0.4	0.0
Currency effect	1.3	−0.3
Other changes	−0.2	−0.9
Provisions for post-employment benefits and lease liabilities at the end of period	**−23.7**	**−25.3**
Net financial position incl. post-employment benefits and lease liabilities at the end of period	**51.0**	**37.3**

1 Including corrections of actuarial calculations of negative SEK 1.7 billion. » **Read more in Note 20** Provisions for post-employment benefits.
2 Including corrections of actuarial calculations of positive SEK 0.6 billion. » **Read more in Note 20** Provisions for post-employment benefits.

CASH FLOW STATEMENT

SOLID OPERATING CASH FLOW

In 2020 operating cash flow in the Industrial Operations amounted to SEK 18.5 billion (38.3). The lower operating cash flow compared to 2019 is primarily an effect of a reduction in operating income of SEK 20.9 billion as well as an increase in working capital of SEK 11.0 billion in 2020 compared to an increase of SEK 0.5 billion in 2019. This was partly offset by a reduction in income taxes paid of SEK 4.6 billion and lower investments of SEK 3.3 billion compared to 2019.

Operating cash flow in Financial Services was positive in an amount of SEK 0.8 billion (–14.0). The change compared to 2019 was mainly due to a lower increase of new business volume in the credit portfolio.

» **Read more in Note 10** Income taxes.
» **Read more in Note 21** Other provisions.

Investments and disposals

The Industrial Operations' investments in tangible and intangible assets during 2020 amounted to SEK 8.7 billion (11.9).

Trucks investments in tangible and intangible assets amounted to SEK 6.8 billion (9.3). The major investments were related to industrial efficiency measures such as replacements and upgrades in our USA plants as well as the ongoing replacement of casting process equipment in Skövde, Sweden. Capital expenditures were also related to product renewals such as the Renault Trucks Master and the development of electrical trucks with both product development activities and required adaptations in the plants. Investments in dealer networks and workshops were mainly made in Europe, primarily for upgrade and replacements.

Investments in Construction Equipment amounted to SEK 0.9 billion (1.1). The major investments in the plants were related to industrial efficiency measures and renewals mainly in Asia. The product related investments during the year were mainly continued investments in tooling and required adaptations in the plants for excavators.

The investments in Buses were SEK 0.3 billion (0.3), and in Volvo Penta SEK 0.5 billion (0.5).

The investment level for property, plant and equipment during 2020 was below last year as an effect of lower activity levels due to the Covid-19 pandemic. Investments in property, plant and equipment is expected to increase during 2021. Investments in optimization of the industrial footprint, product related tooling, replacements as well as dealer investments will continue to be the main areas.

Investments and divestments of shares

In total, investments and divestments of shares in 2020 had a negative impact on cash flow of SEK 0.5 billion compared with a positive impact of SEK 0.1 billion in 2019.

» **Read more in Note 3** Acquisitions and divestments of shares and operations.

Acquired and divested operations

In total, acquired and divested operations in 2020 had a positive impact on cash flow of SEK 0.4 billion (1,3).

» **Read more in Note 3** Acquisitions and divestments of shares and operations.

Financing and dividend

Net borrowings increased by SEK 7.3 billion during 2020 to safeguard liquidity in the Volvo Group. In 2019 net borrowings increased by SEK 9.3 billion due to a growing credit portfolio in Financial Services. No dividend was paid to the shareholders of AB Volvo during 2020.

» **Read more in Note 29** Cash flow regarding change in loans during 2020.

Change in cash and cash equivalents

The Volvo Group's cash and cash equivalents increased by SEK 23.7 billion in 2020 due to the positive operating cash flow and amounted to SEK 85.2 billion at December 31, 2020. ■

» **Read more in Note 18** Cash and cash equivalents regarding the accounting policy.
» **Read more in Note 29** Cash flow regarding principles for preparing the cash flow statement.

CONSOLIDATED CASH FLOW STATEMENTS

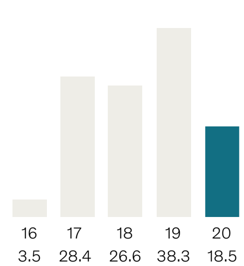
		Industrial Operations		Financial Services		Eliminations		Volvo Group	
SEK M		**2020**	2019	**2020**	2019	**2020**	2019	**2020**	2019
Operating activities									
Operating income		25,919	46,771	1,564	2,766	2	–6	27,484	49,531
Amortization intangible assets	Note 12	3,067	2,911	76	51	–	0	3,143	2,963
Depreciation tangible assets	Note 13	7,569	8,372	27	30	–	0	7,596	8,402
Depreciation leasing vehicles	Note 13	5,292	4,514	4,569	4,707	0	0	9,860	9,221
Other non-cash items[1]	Note 29	–818	–3,599	2,019	1,033	16	–203	1,217	–2,769
Total change in working capital whereof		*–10,961*	–486	*–3,051*	–18,039	*330*	290	–13,682	–18,235
Change in accounts receivables		*–1,970*	*65*	*–60*	*–363*	–	*0*	–2,030	*–298*
Change in customer-financing receivables		*–332*	*36*	*–4,068*	*–16,951*	*289*	*355*	–4,112	*–16,560*
Change in inventories		*2,351*	*4,964*	*114*	*30*	–	*0*	2,465	*4,994*
Change in trade payables		*–4,397*	*–2,643*	*372*	*–678*	–	*0*	–4,025	*–3,322*
Other changes in working capital		*–6,612*	*–2,907*	*592*	*–78*	*41*	*–65*	–5,979	*–3,050*
Dividends received from joint ventures and associated companies		1,070	473	–	–	–	–	1,070	473
Interest and similar items received[2]		382	601	0	2	–96	–262	286	341
Interest and similar items paid[2]		–1,191	–1,457	0	–8	88	362	–1,102	–1,104
Other financial items		–336	–371	–	–	–	–3	–336	–374
Income taxes paid		–4,132	–8,734	–796	–668	–	0	–4,927	–9,401
Cash flow from operating activities		**25,862**	**48,996**	**4,408**	**–10,127**	**340**	**178**	**30,610**	**39,047**
Investing activities									
Investments in intangible assets		–2,972	–3,876	–51	–77	–	–	–3,023	–3,954
Investments in tangible assets		–5,730	–8,059	–3	–4	–	0	–5,733	–8,064
Investment in leasing vehicles		–23	–102	–9,425	–9,890	885	–	–8,564	–9,991
Disposals of in-/tangible assets and leasing vehicles		1,409	1,350	5,833	6,074	–895	–6	6,346	7,418
Operating cash flow		**18,545**	**38,309**	**761**	**–14,024**	**330**	**172**	**19,636**	**24,455**
Investments of shares	Note 3							–475	–195
Divestments of shares	Note 3							13	287
Acquired operations	Note 3							–10	0
Divested operations	Note 3							435	1,343
Interest-bearing receivables incl marketable securities								1,070	–1,033
Cash flow after net investments								**20,669**	**24,857**
Financing activities									
New borrowings[3]	Note 29							128,453	77,553
Repayment of borrowings[3]	Note 29							–121,132	–68,211
Dividend to owners of AB Volvo								–	–20,335
Dividend to non-controlling interest								–778	–12
Other								–99	188
Change in cash and cash equivalents excl. translation differences								**27,113**	**14,040**
Translation difference on cash and cash equivalents								–3,368	487
Change in cash and cash equivalents								**23,745**	**14,528**
Cash and cash equivalents, beginning of year	Note 18							**61,461**	**46,933**
Cash and cash equivalents, end of year	Note 18							**85,206**	**61,461**

1 In 2019, the gain on sale of WirelessCar of SEK 1.6 billion was reclassified from Other non-cash items to Divested operations. The total cash flow impact from the sale amounted to SEK 1.3 billion.

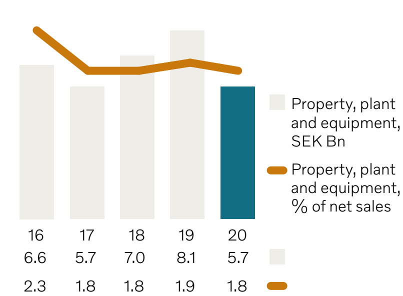
2 As from January 1, 2020 interest income related to Internal Funding from cash is presented as interest income instead of reduction of interest expenses on loans in Industrial Operations. 2019 has been restated.

3 Non-cash items from unrealized currency effects and currency translation is adjusted on new borrowings and repayments of borrowings.

Operating cash flow, Industrial Operations SEK bn



Investments in property, plant and equipment, Industrial Operations



TRUCKS

SALES AND PROFITABILITY AFFECTED BY LOWER VOLUMES

Net sales in the truck business decreased by 25% to SEK 208.3 billion on as the consequences of combatting Covid-19 weighed on many markets. However, demand improved during the course of the year. The adjusted operating income amounted to SEK 17,251 M (31,552) corresponding to a margin of 8.3% (11.4).

Markets affected by Covid-19

After a couple of years of good demand, the European and North American truck market started to slow down in the second half of 2019, and this continued into 2020. In Q2, all major regions followed the same pattern due to the Covid-19 outbreak. Initial disruptions to the supply chains were followed by dropping fleet utilization and a significant drop in demand. During the course of the quarter there was a gradual return on all these parameters. The supply chain, including the Volvo Group's plants, was re-started in May after about a month of complete standstill. As Covid-19 restrictions were eased in many countries, transport activity improved, with the recovery seen towards the end of Q2 continuing in Q3 and Q4. At the end of 2020, utilization of truck fleets in the major markets was back on par with the level of the preceding year. The increased freight activity was positive for customer profitability and many customers returned to their previously planned replacement cycles.

Despite the gradual improvement seen over the course of the year, most markets declined during 2020. The European market for heavy-duty trucks decreased by 28% to 231,200 trucks while the North American market went down by 30% to 234,900 heavy-duty trucks. In Brazil, the market declined by 10% to 67,400 heavy-duty trucks. A general economic recovery, increased demand from the agriculture sector after a good harvest and an underlying need to replace old trucks almost weighed up the effect from Covid-19. The Indian truck market continued to be negatively impacted by a weak economic development and effects from measures to combat Covid-19. The Chinese market, on the other hand, continued to be strong, supported by governmental initiatives to stimulate the economy. Compared to the other major markets, demand for trucks in Japan remained relatively stable through the pandemic.

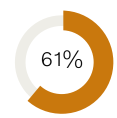
Orders and deliveries

Order intake to the Group's wholly-owned truck operations increased by 14% to 208.505 (182,746) trucks. Order intake increased in Europe, North America, South America and Africa & Oceania. There was a particularly big increase in North America, which had weak order intake in 2019.

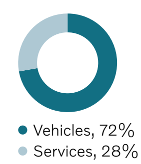
IN BRIEF

The truck operation's product offer stretches from heavy-duty trucks for long-haulage and construction work to light-duty trucks for distribution. The offering also includes maintenance and repair services, financing and leasing.

Share of Group sales



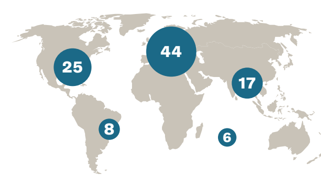
Share of net sales



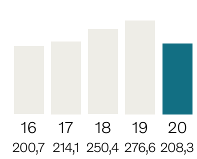
Position on world market
Volvo Group is the world's second largest manufacturer of heavy-duty trucks.

Number of regular employees
56,483 (59,142).

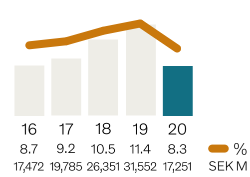
Share of net sales by market, %



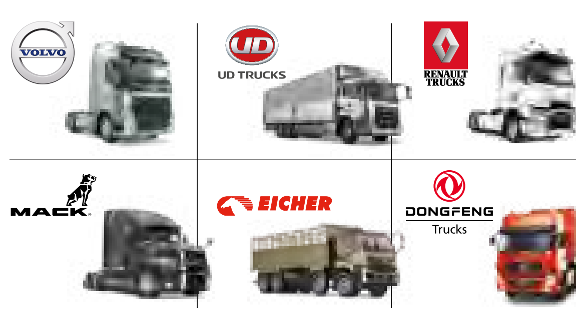
Net sales
SEK bn



Adjusted operating income[1] and adjusted operating margin



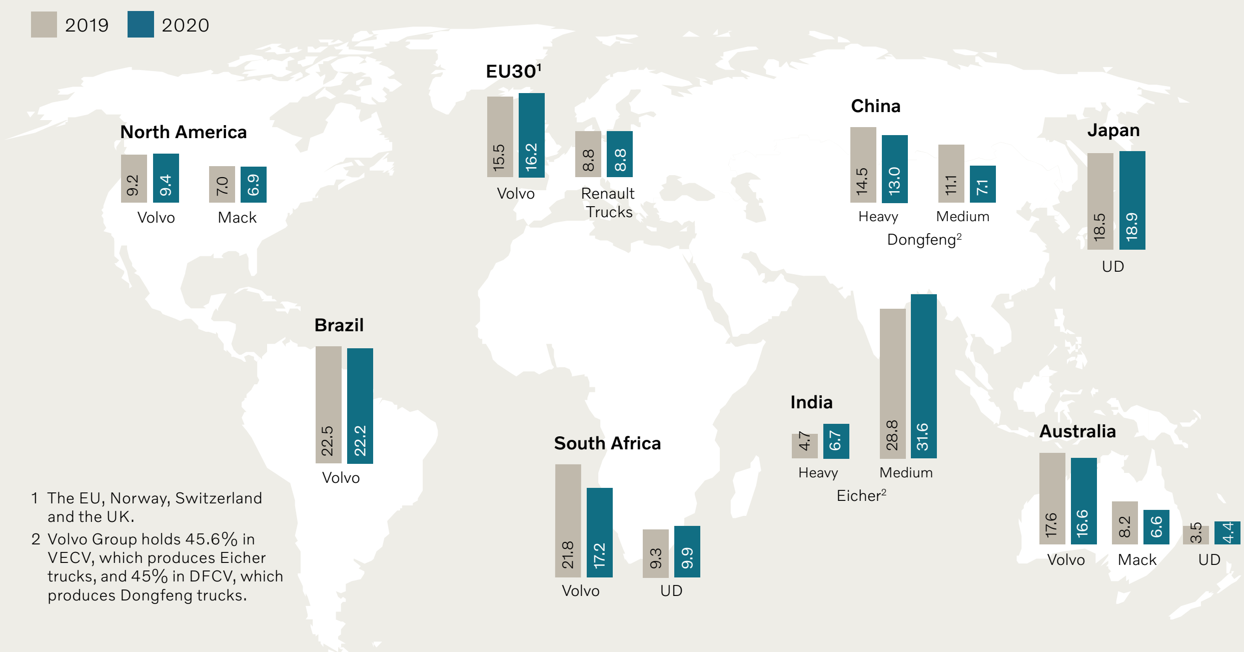
TRUCK BRANDS



1 For information on adjusted operating income, please see Key Ratios on page 194.

STRONG POSITIONS GLOBALLY

Market shares, heavy-duty trucks %



1 The EU, Norway, Switzerland and the UK.
2 Volvo Group holds 45.6% in VECV, which produces Eicher trucks, and 45% in DFCV, which produces Dongfeng trucks.

Net sales and operating income SEK M	**2020**	2019
Europe	92,127	112,125
North America	52,038	85,731
South America	15,830	23,753
Asia	35,441	37,610
Africa and Oceania	12,826	17,427
Total net sales	**208,262**	**276,647**
Of which		
Vehicles	149,902	213,071
Services	58,360	63,575
Adjusted operating income[1]	**17,251**	**31,552**
Adjustments[1]	–1,486	–
Operating income	**15,764**	**31,552**
Adjusted operating margin, %	8.3	11.4
Operating margin, %	7.6	11.4

1 For information on adjusted operating income, please see Key Ratios on page 194.

Deliveries by market Number of trucks	**2020**	2019
Europe	79,814	104,145
North America	32,056	62,308
South America	17,684	23,729
Asia	27,009	29,435
Africa and Oceania	10,278	13,152
Total deliveries	**166,841**	**232,769**
Heavy duty (>16 tons)	140,652	201,092
Medium duty (7–16 tons)	10,736	12,700
Light duty (<7 tons)	15,453	18,977
Total deliveries	**166,841**	**232,769**
Volvo	93,846	131,254
UD	15,458	19,911
Renault Trucks	41,117	54,098
Mack	16,420	27,506
Total deliveries	**166,841**	**232,769**
Non-consolidated operations		
VE Commercial Vehicles (Eicher)	30,192	47,083
Dongfeng Commercial Vehicle Company (Dongfeng Trucks)	221,217	186,039

In 2020, a total of 166.481 trucks where delivered from the Group's wholly-owned operations, a decrease of 28% compared with 232,769 trucks in 2019. Deliveries decreased in all markets as a consequence of a general slowdown in many markets at the beginning of the year. This was aggravated by the outbreak of the Covid-19 pandemic, which initially affected supply chains and subsequently demand. As the strong measures to combat the spread of the disease were eased, deliveries improved during the latter part of the year.

Lower volumes impacted profitability

In 2020, net sales in the truck operations decreased by 25% to SEK 208,262 M (276,647). Adjusted for currency movements, net sales decreased by 21%, of which vehicle sales decreased by 26% and service sales by 4%.

Adjusted operating income amounted to SEK 17,251 M (31,552) corresponding to a margin of 8.3% (11.4), excluding adjustments of SEK –1,486 M. For information on adjustments, please see Key Ratios on page 194. The decreased earnings were mainly a result of lower vehicle and service volumes as well as decreased capacity utilization in the industrial system, while lower selling and administrative expenses, material costs and R&D expenses had a positive impact. Adjusted operating income for 2020 includes a positive effect of SEK 322 M from a correction of actuarial calculations of the Group's pension liabilities and SEK 362 M from a favorable tax ruling in Brazil. Adjusted operating income in 2019 included a positive impact of SEK 707 M from the sale of properties. Reported operating income amounted to SEK 15,764 M (31,552). Currency movements had a negative impact of SEK 1,707 M compared with 2019.

Important events

In Q1, Volvo Trucks launched a completely new generation of heavy-duty trucks, with a strong focus on the driver environment, safety and productivity. The four trucks; Volvo FH, FH16, FM and FMX, normally represent about two thirds of Volvo Trucks' deliveries. Because of the Covid-19 pandemic the launch was subsequently postponed until the autumn.

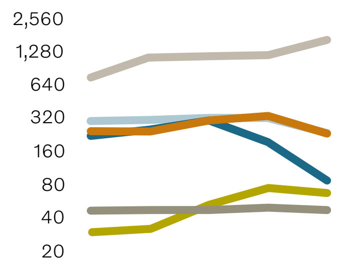
Also in Q1, Mack Trucks launched medium-duty models for the North American market. These new products will meet the needs of trucking applications requiring dry van/refrigerated, stake/flatbed, dump and tank truck vocations.

In Q2, UD Trucks expanded its heavy-duty truck range with the launch of a new, short-cab Quon, enabling more cargo to be carried and thereby higher customer productivity. The model was available in Japan on June 1.

In Q3, Volvo Trucks started piloting the electric regional haul truck Volvo VNR Electric with customers in Southern California. Sales started in Q4 and serial production of the Volvo VNR Electric will begin in 2021.

Market development, heavy-duty trucks

Thousands



	2016	2017	2018	2019	2020
Europe 30	300	307	322	321	231
North America	243	244	311	336	235
Brazil	30	32	53	75	67
Japan	47	47	48	50	47
India	220	251	306	194	87
China	733	1,117	1,148	1,174	1,619

Also in Q3, Mack Trucks delivered pre-production Mack LR Electric refuse trucks to New York Department of Sanitation and to Republic Services for in-service trials. Mack Trucks will start to take orders for the electric refuse truck in Q4 2020. Serial production will start 2021.

The new Volvo Trucks range – Volvo FH, Volvo FH16, Volvo FM and Volvo FMX – was successfully relaunched in Q3. Among the news was a new generation of the fuel-efficiency package I-Save for Volvo FH. The latest release of I-Save can cut fuel costs by up to 10% compared with the older version without I-Save. More information is available on page 27.

In July, it was decided to initiate a project to create a separate business unit for medium-duty trucks in Europe. Having a cross-functional team dedicated solely to medium-duty trucks will create the focus needed to improve the performance of this important business.

In October, the Volvo Group and Isuzu Motors signed binding agreements to form a strategic alliance within commercial vehicles. More information is available on the next page.

In November, the Volvo Group and Daimler Truck AG signed binding agreement for a joint venture to develop, produce and commercialize fuel-cell systems for use in heavy-duty trucks as the primary focus, as well as other applications. More information is available on page 25.

In November, Volvo Trucks announced that from 2021 onwards a complete range of battery-electric Volvo trucks will be offered in Europe for distribution, refuse, regional transport and urban construction operations. Volvo Trucks will be offering holistic solutions that include route planning, correctly specified vehicles, charging equipment, financing and services. Volvo Trucks' massive drive towards electrification marks a major step forwards on the road to fossil-free transport. ■

UD TRUCKS

Divestment of UD Trucks and formation of strategic alliance with Isuzu Motors

In October 2020, the Volvo Group and Isuzu Motors signed binding agreements to form a strategic alliance within commercial vehicles in order to capture the opportunities in the ongoing industry transformation, in accordance with a Memorandum of Understanding signed in December 2019.

The agreements include Isuzu Motor's acquisition of UD Trucks from the Volvo Group for an enterprise value of JPY 243 billion (approx. SEK 20 billion). The transaction is subject to certain conditions, including approval from regulatory authorities. The alliance between the Volvo Group and Isuzu Motors is set to a build long-term and robust relationship that will encompass but not be limited to:

- Forming a technology partnership, intended to leverage the parties' complementary areas of expertise within both well-known and new technologies and creating a larger volume base to support investments for world-class technology. The technology partnership encompasses joint development by Isuzu Motors and UD Trucks of common platforms for medium heavy-duty truck models for the Japanese market and other Asian markets, utilizing amongst others Volvo Group technology as well as the intended cooperation regarding new technologies such as autonomous driving, connectivity and medium- and heavy-duty electric vehicles.
- Creating the best long-term conditions for a stronger heavy-duty truck business for UD Trucks and Isuzu Motors in Japan and across international markets by transferring ownership of the complete UD Trucks business from the Volvo Group to Isuzu Motors. This will accelerate growth by leveraging greater volumes and complementary capabilities, creating significant synergies for Isuzu Motors. As a first step, Isuzu Motors and UD Trucks are discussing the conditions for supply of certain truck variants from UD Trucks to Isuzu Motors from 2022 onwards. To secure smooth business continuation, the Volvo Group will provide transitional services to UD Trucks and also supply components to UD Trucks.
- Exploring further opportunities for even broader and deeper collaboration within the commercial vehicle businesses across geographical areas and product lines for future urban logistics solutions. Isuzu Motors is one of the world-leaders in the segment of 3.5 to 15 ton light and medium-duty trucks with volumes of 252,000 units in 2019.
- Exploring cooperation in the areas of purchasing and logistics, leveraging common technology, as well as the geographical footprint complementarity and volume expansion.

"I have high expectations on this strategic alliance, which will make Volvo and Isuzu Motors even more competitive within their respective markets and segments. This is an opportunity to share technology investments and also to help each other grow. I am confident that UD Trucks will become a bridge between the Volvo Group and Isuzu Motors and that the strategic alliance will create the conditions to continue to develop UD Trucks to a new level within Isuzu Motors. I also want to express my pride at how the UD Trucks team has been able to serve customers and continue to improve financial performance also during this unprecedented period, characterized by the Covid-19 pandemic. The Volvo Group will continue to support UD Trucks, and participate in the Asian markets through this alliances" says Martin Lundstedt, President and CEO of the Volvo Group.

CONSTRUCTION EQUIPMENT

GOOD PROFITABILITY

A steep drop in demand, factory closures and supply chain disruptions all contributed to a weak first half of 2020. But a strong rebound, particularly in the world's biggest market, China, saw Volvo Construction Equipment (Volvo CE) recover much of the lost ground. For the full year 2020, net sales decreased by 8% to SEK 81.5 billion. The adjusted operating income amounted to SEK 10,071 M (11,910) corresponding to a margin of 12.4% (13.4).

In line with its Building Tomorrow Together strategy, Volvo CE introduced new working practices and organizational changes designed to move closer to its customers and allow the business to self-manage day-to-day operations in a more efficient way. New Centers of Expertise for Uptime, Productivity and Parts Services & Logistics were introduced with the aim to expand revenues from services. Success in China is central to future growth and a line of new China-customer-focused excavators were rolled out by both Volvo and SDLG brands. Dealers remain the backbone of the company's route to market, but ecommerce options are also being explored as part of the transformation agenda. Volvo CE also continues along the path towards new technologies that offer more sustainable solutions. These include hybrid, battery-electric and fuel cell-electric solutions, while the combustion engine technology still has more to offer as it gets cleaner and more efficient.

China led recovery in demand

The impact of the Covid-19 pandemic made its presence felt in sharply lower demand in China from early in 2020, an impact that then swept through all global markets to varying degrees during the first half of the year. Lockdowns, factory closures and other measures designed to limit the spread of the pandemic, along with external supply chain issues, also hampered deliveries. This was countered by a gradual improvement in customer sentiment and a strong, stimulus-driven recovery in China. The other markets also recovered in the second half of the year as construction activity rebounded. However, until November, both the European and North American markets were down by 14% while South America rose by 12% from low levels. Asia (excluding China) was down by 6% while China increased by 28%.

In 2020, Volvo CE had an increase in order intake of 17% to 97,987 machines (83,953). Order intake increased in all markets except North America, with increased demand for both Volvo and SDLG branded equipment. Total deliveries increased by 8% and amounted to 93,760 machines (86,885).

Bounce back after an initial fall

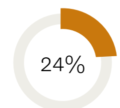
A sharp drop in sales during the first half of the year was softened by a strong rebound as the year progressed, culminating in a relatively stable year overall despite the effects of the Covid-19 pandemic. Net sales in 2020 decreased by 8% to SEK 81,543 M (88,606 M). Adjusted for currency movements, net sales decreased by 5%, of which machine sales declined by 5% and service sales by 2%.

IN BRIEF

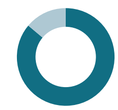
Volvo CE is one of the leaders in the development of products and services for the construction, extraction, waste processing, forestry and materials handling sectors.

Position on world market
One of the world's leading manufacturers of haulers, wheel loaders and excavators. Also produces road construction machines and compact equipment. The offering also includes services such as customer support agreements, machine control systems, attachments, financing and leasing.

Share of Group sales

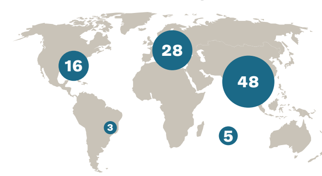


Share of net sales



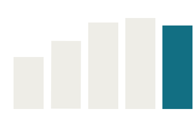
- Construction equipment, 86%
- Services, 14%

Share of net sales by market %

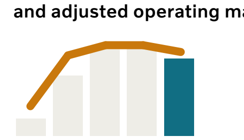


Number of regular employees
13,404 (13,756).

Net sales
SEK bn



Adjusted operating income[1] and adjusted operating margin



BRANDS

VOLVO SDLG TEREX TRUCKS

EXAMPLES OF MACHINES

1 For information on adjusted operating income, please see Key Ratios on page 194.

Net sales and operating income SEK M	**2020**	2019
Europe	23,191	30,300
North America	13,020	17,404
South America	2,245	2,532
Asia	39,095	33,932
Africa and Oceania	3,902	4,437
Total net sales	**81,453**	**88,606**
Of which:		
Construction Equipment	70,146	76,506
Services	11,306	12,099
Adjusted operating income[1]	**10,071**	**11,910**
Adjustments[1]	−488	–
Operating income	**9,583**	**11,910**
Adjusted operating margin, %	12.4	13.4
Operating margin, %	11.8	13.4

1 For information on adjusted operating income, please see Key Ratios on page 194.

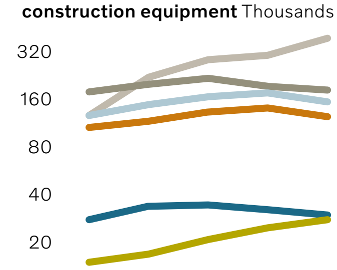
Deliveries by market Number of machines	**2020**	2019
Europe	15,762	21,420
North America	5,025	7,278
South America	2,335	2,004
Asia	68,232	53,664
Africa and Oceania	2,406	2,519
Total deliveries	**93,760**	**86,885**
Large and medium construction equipment[1]	65,959	64,558
Compact construction equipment[2]	27,802	22,327
Total deliveries	**93,760**	**86,885**
Of which:		
Volvo	38,112	41,057
SDLG	55,504	45,682
Of which in China	50,901	40,202

1 Excavators >10 tons, wheel loaders engine power >120 hp, articulated haulers, rigid haulers and road machinery products.

2 Excavators <10 tons, wheel loaders engine power <120 hp, skid steer loaders and backhoe loaders.

Adjusted operating income amounted to SEK 10,071 M (11,910 M), corresponding to a margin of 12.4% (13.4), excluding adjustments of SEK −488 M. For information on adjustments, please see Key Ratios on page 194. Earnings were negatively impacted by an unfavorable product and market mix primarily related to growth in China, while lower selling, R&D and administrative expenses as well as increased machine volumes had a positive impact. Adjusted operating income includes a negative effect of SEK 316 M from a write-down of VAT credits in Brazil and positive effect of SEK 96 M from a correction of actuarial calculations of the Group's pension liabilities. Reported operating income amounted to SEK 9,583 M (11,910). Currency movements had a negative impact of SEK 989 M compared with 2019.

Market development in Volvo CE product ranges, construction equipment Thousands



	2016	2017	2018	2019	2020*
Europe	126	148	167	177	155
N. America	106	117	134	142	125
S. America	15	17	21	25	28
Asia (excl. China)	178	200	219	194	184
China	127	220	292	317	400
Africa & Oceania	28	34	35	30	30

*Rollling 12 months per November

Important events

To support the launch of the company's first fully electric compact machines, Volvo CE introduced the industry's first online pre-booking sales platform, which allows customers in selected markets to pre-book the L25 Electric compact wheel loader and the ECR25 Electric compact excavator and reserve their places in the production queue. Deliveries of the machines began in Q4 with customer starts in several European markets.

The Volvo CE-developed battery-electric autonomous load carrier TA15 won a Red Dot Award for product design. With a 15 ton hauling capacity, the autonomous and cableless load carrier forms part of Volvo Autonomous Solutions' wider TARA transport solution concept, so that a series of them can be connected together to form a 'train' of machines, for maximum loading and hauling efficiency.

Volvo CE and Finnish company Norrhydro have developed a digital hydraulic actuator that increases productivity while radically cutting fuel bills and CO_2 emissions in construction applications. With a Volvo EC300E 30 ton excavator as a test bed, the revolutionary technology has passed its initial proof-of-concept phase and durability tests and is now moving to a field test period, where prototypes are used in real world applications by selected customer partners. It is forecast that the revolutionary system will be offered on the company's excavators by 2024 at the latest.

During Q4, Volvo and SDLG participated in the important Bauma China trade show in Shanghai where two new ranges of Volvo excavators were launched in this growing product segment.

In line with the company's policy of concentrating on core product groups, Volvo CE divested its North American Blaw-Knox paver range. ■

BUSES

GLOBAL BUS MARKET SEVERELY AFFECTED BY COVID-19

The global bus market was severely affected by the Covid-19 pandemic. A steep decline in market demand and lockdowns disrupting supply chains, particularly affected Volvo Buses' coach business, whereas the transit bus market remained at relatively higher activity levels. The lower deliveries resulted in net sales declining by 36% to SEK 19.8 billion in 2020. The adjusted operating income amounted to SEK –445 M (1,337), as the low volumes could not be fully counteracted by significant cost reductions.

Volvo Buses' strategic priorities are to enhance competitiveness and increase profitability by making both operational improvements and transformational changes that strengthen the commercial offering, improve quality and reduce cost. In 2020, transformational changes included extending the electromobility offering and further decentralizing decision-making in end-to-end business unit value chains. In line with this strategy, a dedicated global chassis organization was implemented. In Q4, Volvo Buses' business in India was divested to the Volvo Group's joint-venture VECV.

Increased demand for electric buses

The decline in demand affected all parts of the business, with a particularly severe impact on the coach business. The European market decreased with lower volumes in all areas. In North America, demand also declined, and almost stopped in the coach market. Brazil started to pick up again in the second half of the year, similar to certain Asian markets.

However, demand for end-to-end solutions for electrified buses continued to be strong. The product offering includes a range of electrified buses for Europe (Volvo) and North America (Nova Bus). This was extended with the new S-Charge hybrid model range including chassis for the global market. The offering also includes battery and charging infrastructure options as well as services. Charging solutions are developed together with external providers, including fast-charging (OppCharge), now also with a pantograph-up solution, and depot charging.

At the end of the year, Volvo Buses started delivering the order for 157 electric articulated buses to Gothenburg, Sweden. In total, orders for 287 (315) Volvo branded fully electric buses were received from customers in countries such as Sweden, Norway, Denmark and Poland. 306 (438) electrified buses were delivered to cities across Europe, confirming electric buses as a sustainable and financially viable solution for high-capacity public transport. More than 5,000 Volvo branded electrified buses have been sold since the start in 2010.

Important orders

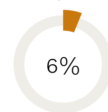
The New York State Metropolitan Transportation Authority extended orders from the previous year with another order for 307 Prevost commuter buses and 500 Nova Bus transit buses.

IN BRIEF

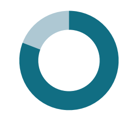
Volvo Buses is a leader in the development of sustainable public transport solutions and one of the world's largest manufacturers of premium buses, coaches and bus chassis. Volvo Buses has sales in 85 countries and a global service network with more than 1,500 dealerships and workshops. Production facilities are found in Europe, North America and South America.

Position on world market
Volvo Buses is one of the world's largest producers of buses and coaches in the premium segment.

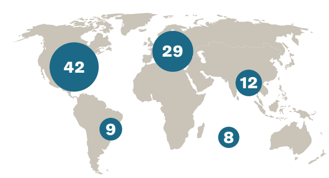
Share of Group sales



Share of net sales

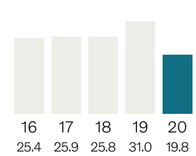


Share of net sales by market %

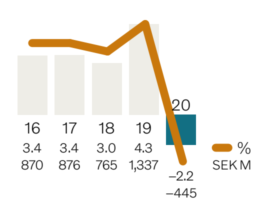


Number of regular employees
6,608 (8,324)

Net sales
SEK bn



Adjusted operating income[1] and adjusted operating margin



BRANDS

VOLVO PREVOST NOVABUS

BUSES

The offering includes city buses, intercity buses and coaches as well as associated transport systems, financial services and services for vehicle and traffic information.

1 For information on adjusted operating income, please see Key Ratios on page 194.

Chile's capital city Santiago ordered 200 Volvo articulated buses, leading to a total of 2,850 Volvo buses operating in Santiago after the latest delivery.

An important order was 128 hybrid buses to Brussels, Belgium, where Volvo continues to support the electromobility journey.

Declining volumes and earnings

Buses' net sales decreased by 36% to SEK 19,791 M compared with SEK 31,019 M in 2019. Adjusted for currency movements, net sales decreased by 33%, of which vehicle sales decreased by 35%. Currency-adjusted service sales were down 22%, following a standstill in operations for many coach operators during the pandemic.

Adjusted operating income amounted to SEK –445 M (1,337), corresponding to a margin of –2.2% (4.3) excluding adjustments of SEK –77 M. For information on adjustments, please see Key Ratios on page 194. Earnings were negatively impacted by decreased vehicle and service volumes as well as lower capacity utilization. Reduced selling, R&D and administration expenses contributed to mitigate some of the volume shortfall. Adjusted operating income includes a positive effect of SEK 52 M from a correction of actuarial calculations of the Group's pension liabilities. Reported operating income amounted to SEK –522 M (1,337). Currency movements had a negative impact in an amount of SEK 347 M compared with 2019.

Product and service introductions

Volvo Buses introduced the new Volvo S-Charge model range including chassis, where electric propulsion drives the hybrid buses at speeds up to 50 km/h. The buses can run in electric mode up to 1 km at a time. The upgrade also includes improved connectivity and Volvo's system for geo-fencing, Volvo Zone Management.

Volvo Buses launched the new Volvo 9700 DD double-decker, aimed at the Nordic market for high capacity vehicles with premium comfort and safety features in the express segment.

Volvo Buses together with Stena Recycling and Batteryloop signed a global agreement on reuse of bus batteries, creating a new circular business. After the batteries are removed from Volvo's buses, they are reused as energy storage units in buildings and charging stations for a number of years. ■

Net sales and operating income SEK M	**2020**	2019
Europe	5,765	7,369
North America	8,302	15,543
South America	1,793	3,281
Asia	2,397	2,617
Africa and Oceania	1,535	2,209
Total net sales	**19,791**	**31,019**
Of which:		
Vehicles[1]	16,072	26,110
Services[1]	3,720	4,909
Adjusted operating income[2]	**–445**	**1,337**
Adjustments[2]	–77	–
Operating income	**–522**	**1,337**
Adjusted operating margin, %	–2.2	4.3
Operating margin, %	–2.6	4.3

1 Restate of 2019 between Vehicles and Services of SEK 510 M.

2 For information on adjusted operating income, please see Key Ratios on page 194.

Deliveries by market Number of buses	**2020**	2019
Europe	1,565	2,350
North America	1,644	3,084
South America	1,152	1,917
Asia	1,097	1,465
Africa and Oceania	797	915
Total deliveries	**6,215**	**9,731**

VOLVO 7900 ELECTRIC

ROLLOUT OF VOLVO 7900 ELECTRIC ARTICULATED IN GOTHENBURG, SWEDEN

On December 13, 145 Volvo 7900 Electric Articulated buses began to operate 34 different routes on the streets in and around Gothenburg, Sweden – a significant milestone for both the city and Volvo Buses. With this 35% of the total bus fleet is electrified. The complete system solution includes a total of 157 electric buses, charging infrastructure, maintenance services and driver training. Making this one of the largest electric bus fleets in Europe, Gothenburg takes a big step to large-scale electrified public transport, moving towards a more sustainable city – a Zero City with zero emissions and zero noise. On a yearly basis, this will reduce CO_2 emissions by 14,500 tons and nitrogen oxide emissions by approximately 8,000 kg, and passengers will enjoy silent buses. The noise level of each bus is reduced by 7dB, halving its noise emissions. The goal set for the city of Gothenburg is for all city buses to be electric by 2030.

VOLVO PENTA

LOWER SALES AND GOOD PROFITABILITY

In 2020, Volvo Penta's net sales decreased to SEK 11.9 billion (13.3). Adjusted operating income amounted to SEK 1,448 M (1,876).

Volvo Penta operates in two businesses: Marine, consisting of the leisure and commercial segments and Industrial, which includes the off-road and power generation segments. Within marine, Volvo Penta aims to lead the industry, continuing to develop innovative products and solutions. For the industrial segments, Volvo Penta's goal is to be a key player, continuing to expand its strong footprint, seeking maximum leverage of Volvo Group assets in its offer, and adding value for customers in its application and integration expertise.

Volvo Penta's strategy is focused on delivering customer success and continuously improving satisfaction. Volvo Penta's ambition is to deliver sustainable power solutions for both customers and society at large. This includes focus on full electric, hybrid and fuel cell solutions and also improved engine technologies. Volvo Penta aims to continue to perform with the current offer and to accelerate the transformation within electromobility, autonomous solutions and new services.

Market development

The marine leisure market weakened due to Covid-19 in the spring, but rebounded during Q3 and the development continued in Q4. The market for larger yachts showed a strong recovery. In the marine commercial market, many investments in new vessels were postponed to 2021. However, demand for vessels serving the off-shore wind industry continued to show a positive development.

The market for industrial off-road engines slowed down due to a decline in the construction and agriculture machinery segments in most regions except China. However, markets started to rebound towards the end of the year. The industrial power generation market decreased globally in the spring but recovered thereafter.

Lower volumes impacted profitability

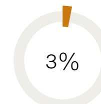
Volvo Penta's net sales decreased by 11% to SEK 11,891 M compared with SEK 13,287 M in 2019. Adjusted for currency movements, net sales decreased by 8%, of which engine sales decreased by 11%, while service sales increased by 2%. Adjusted operating income amounted to SEK 1,448 M (1,876), corresponding to a margin of 12.2% (14.1), excluding adjustments of SEK –46 M. For information on adjustments, please see Key Ratios on page 194. Earnings were negatively impacted by lower engine volumes and restructuring costs of SEK 177 M related to the outboard business, which were partly offset by lower selling, administrative and R&D expenses. Adjusted operating income includes a positive effect of SEK 48 M from a correction of actuarial calculations of the Group's pension

IN BRIEF

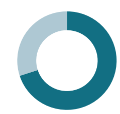
Volvo Penta aims to be the most forward thinking and customer focused supplier of sustainable power solutions. Volvo Penta provides engines and power solutions for leisure and commercial boats, as well as for power generation and industrial, off-road applications.

Position on world market
Volvo Penta is the world's largest producer of power systems for leisure boats and a leading, provider of power systems for industrial off-road and power generation segments.

Share of Group sales

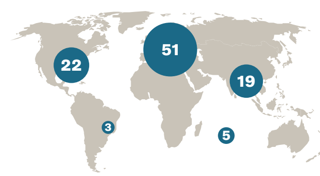


Share of net sales



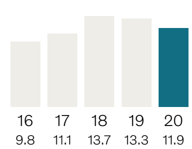
- Engines, 70%
- Services, 30%

Share of net sales by market %

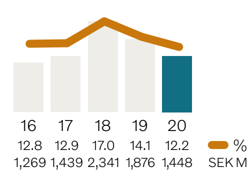


Number of regular employees
1,798 (1,800).

Net sales
SEK bn



Adjusted operating income[1] and adjusted operating margin

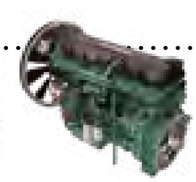


BRANDS

VOLVO PENTA

ENGINES

Marine engines



Industrial engines

1 For information on adjusted operating income, please see Key Ratios on page 194.

Net sales and operating income SEK M	**2020**	2019
Europe	6,064	6,671
North America	2,562	3,180
South America	345	319
Asia	2,228	2,439
Africa and Oceania	691	679
Total net sales	**11,891**	**13,287**
Of which:		
Engines	8,365	9,698
Services	3,526	3,588
Adjusted operating income[1]	**1,448**	**1,876**
Adjustments[1]	–46	–
Operating income	**1,402**	**1,876**
Adjusted operating margin, %	12.2	14.1
Operating margin, %	11.8	14.1

1 For information on adjusted operating income, please see Key Ratios on page 194.

Deliveries by segment Number of units	**2020**	2019
Marine engines[1]	14,842	18,135
Industrial engines	20,444	21,324
Total deliveries	**35,286**	**39,459**

liabilities. Reported operating income amounted to SEK 1.402 M (1.876). Currency movements had a negative impact of SEK 130 M compared with 2019.

Moving towards electrified solutions on land and at sea

Volvo Penta continued to take strides forward in its journey to offer electrified power solutions to both industrial and marine segments. A major milestone was realized with the delivery of a 600V electric driveline for Rosenbauer's 'Revolutionary Technology' fire truck, which was revealed to the market in Q3 (see page 28). The Volvo Penta electric driveline delivers zero exhaust emissions and significantly reduced noise levels. During Q4, Volvo Penta announced collaboration with Danfoss Editron on powering two hybrid crew transfer vessels with new pilot technology (see below).

Further strengthened customer offer

A number of product enhancements and reveals were made during 2020 with the aim to significantly reduce emissions and enhance the user experience. Volvo Penta revealed its new D8 industrial power generation engine, which offers industry-leading power density, compact size, as well as low fuel consumption and noise levels. This new engine meets Stage II and Stage IIIA/Tier 3 emissions legislations and can be used for both mobile and stationary power generation applications. Additionally, Volvo Penta started delivery of its new D8 power generation engine to meet EU Stage V emissions, bringing the benefits of ease of installation, operation and maintenance, as well as reduced fuel consumption and improved total cost of ownership to a wide range of customers.

Volvo Penta revealed an upgraded D16 engine designed for commercial marine use, including packages for marine gensets as well as IMO Tier III compliance. New D8 and D13 solutions were also revealed to meet EU Stage V marine emissions for Inland Waterways. The company announced updates to its D13 engine range for commercial marine use with increased performance and durability, for lower cost of ownership.

Additionally, Volvo Penta expanded its yacht offer with a new 13-liter IPS propulsion package designed for lower speed, semi-displacement yachts. A new 33-meter Mangusta yacht was one of the new superyachts revealed during 2020 with this propulsion package. Volvo Penta celebrated a key milestone with more than 30,000 Volvo Penta Inboard Performance System (IPS) installations across the marine sector. Volvo Penta IPS delivers a unique user experience with up to 30% reduced fuel consumption and 30% less CO_2 emissions compared to traditional inboard shafts.

Volvo Penta also continued the evolution of its Easy Connect app, which provides users with data related to the engine, boat, and routes taken – directly to their smartphone or tablet. The app is being expanded with new features designed for commercial marine professionals.

Volvo Penta decided to reprioritize its investments into areas such as electrification and other transformational technologies and has therefore decided not to further invest in the outboard segment at this time.

In January 2021, Volvo Penta announced the commercial availability of the industry's first fully integrated Assisted Docking. The system gives better control when docking a boat by automating the captain's intentions, helping the vessel stay on its intended course. ■

COLLABORATION WITH DANFOSS EDITRON

HYBRID CREW TRANSFER VESSELS

Volvo Penta collaborates with Danfoss Editron on powering two hybrid crew transfer vessels with new pilot technology. Set to be launched in summer 2021 these vessels are an innovative combination of integrated electric Volvo Penta Inboard Performance System (IPS), state-of-the-art marine gensets, and advanced vessel management systems.

FINANCIAL SERVICES

INCREASED CREDIT PROVISIONS IMPACTED EARNINGS

Volvo Financial Services (VFS) finished 2020 with an increased penetration of 30% (25), new business volume of SEK 74.1 billion (81.0) and an adjusted operating income of 1,606 (2,766). Return on equity was 8.3% (15.0).

VFS works closely with its brand partners to enable the sale of Volvo Group services and solutions through tailor-made financial services such as financing, insurance, and repair and maintenance contracts, delivering a convenient customer experience.

Continued to perform and take action

VFS aims to create value and drive customer loyalty through the delivery of innovative financial services and a best-in-class customer experience. VFS focuses on balancing investments in the performance of its traditional business models with investments in innovative technologies and business solutions, and ensuring success in four areas: customer support, cash flow management, expense control, and colleague safety and well-being. Through this approach, VFS performed well with its existing offering in 2020 and continue its transformation journey for 2021 and beyond.

Profitability and resilience during pandemic

Despite the challenging business environment in 2020, VFS remained profitable, improved efficiency and continued to increase its commercial relevance in markets through close integration with its brand partners, resulting in a significant increase in overall penetration of 30% (25) and stable pricing. More than 16,000 customers utilized payment assistance programs offered by VFS, as it modified approximately 25% of its retail portfolio in order to provide cash flow relief to customers. While a small portion of customers requested a second modification, payment performance was good overall, and the support helped many customers remain in business. At the same time, preparations were made for expected increases in collection and repossession activities, and remarketing strategies were enhanced in anticipation of a slow recovery. While the majority of employees worked from home amidst the pandemic, service levels for dealers and customers remained stable, demonstrating VFS employees' steadfast commitment to dealers and customers. VFS employee safety and well-being continued to remain a priority.

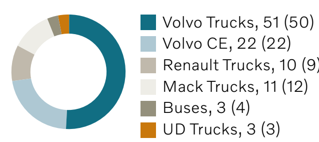
Transformation progress and new market entries

VFS sharpened its strategy to support the Volvo Group's vision and priorities, and continued to develop its services transformation agenda designed to support the Volvo Group's focus on increasing its services revenue and enabling new services development. VFS focus areas are to expand its parts and services financing platform, payment platform and subscription management capabilities, and connected insurance. As the Volvo Group expands the offer of electric products, VFS is developing financing and insurance in order to play a key role in the delivery of vehicles-as-a-service, to customers. These capabilities will help drive the further development of digital services offered by the Volvo Group by bundling solutions and offering a seamless customer experience. Geographic expansion also occurred for VFS with the opening of operations in Peru and Croatia. VFS completed a reorganization to further accelerate VFS' transformation, get closer to customers, increase profitability and speed to market.

IN BRIEF

VFS offers innovative financial services to dealers and customers that simplify their purchase and ownership experience and drive their business success. As the financial services provider for the Volvo Group, VFS provides flexible financing, insurance and other services tailored to a customer's current and future needs, and enables a long-term relationship, which increases loyalty to the Volvo Group brands.

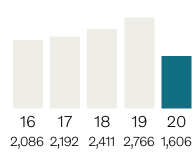
Distribution of credit portfolio %



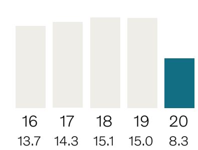
Number of regular employees
1,511 (1,538).

Position on world market
VFS' footprint covers more than 90% of Volvo Group sales, with customer financing available in 50 countries worldwide. VFS manages a credit portfolio of SEK 152 billion with more than 260,000 vehicles and equipment.

Adjusted operating income[1]
SEK M



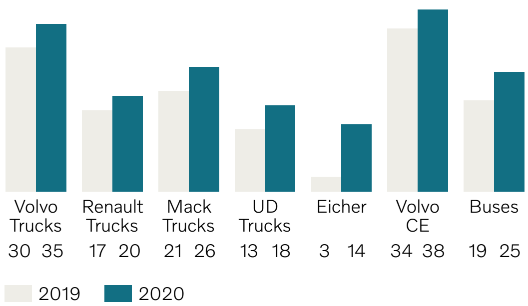
Return on shareholders' equity[2]
%



1 For information on adjusted operating income, please see Key Ratios on page 194.

2 Excluding a positive impact of SEK 897 M during 2017 from the revaluation of deferred tax liabilities related to a tax reform in the US.

Penetration rate[1] %



1 Share of unit sales financed by Volvo Financial Services in relation to total number of units sold by the Volvo Group in markets where financial services are offered.

Key ratios, Financial Services	2020	2019
Number of financed units	61,047	62,209
Total penetration rate[1], %	30	25
New financing volume, SEK billion	74.1	81.0
Credit portfolio net, SEK billion	152	170
Credit provision expenses, SEK M	1,892	729
Adjusted operating income[2]	1,606	2,766
Adjustments[2]	–43	–
Operating income, SEK M	1,564	2,766
Credit reserves, % of credit portfolio	2.07	1.51
Return on shareholders' equity, %	8.3	15.0

1 Share of unit sales financed by Volvo Financial Services in relation to the total number of units sold by the Volvo Group in markets where financial services are offered.

2 For information on adjusted operating income, please see Key Ratios on page 194.

Reduced profitability due to increased credit provisions

During 2020, VFS increased its penetration rate. In the markets where financing is offered, the average penetration was 30%, which was an increase from 25% in 2019. As a result, new business volume remained stable despite reduced deliveries of Group products and services. Total new financing volume in 2020 amounted to SEK 74.1 billion (81.0), a decrease of 3% adjusted for currency. In total, 61,047 (62,209) new Volvo Group vehicles and machines were financed during the year. The net credit portfolio of SEK 152,335 M (169,893) increased by 1% on a currency-adjusted basis compared to 2019. The funding of the credit portfolio is matched in terms of maturity, interest rates and currencies in accordance with Group policy. For further information, see Note 4.

Adjusted operating income amounted to SEK 1,606 M (2,766), excluding adjustments of SEK –43 M. For information on adjustments, please see Key Ratios on page 194. The return on shareholders' equity was 8.3% (15.0). The equity ratio at the end of the year was 8.0% (8.0). The lower results were primarily a result of higher credit provisions and negative currency impacts, which were partially offset by lower expenses and portfolio growth. During the year, credit provision expenses amounted to SEK 1,892 M (729) while write-offs of SEK 821 M (574) were recorded. The write-off ratio for 2020 was 0.49% (0.35). Reported operating income amounted to SEK 1.564 M (2.766). At the end of December 31, 2020, credit reserves were 2.07% (1.51) of the credit portfolio. ■

Income statement Financial Services SEK M	2020	2019
Finance and lease income	13,960	14,870
Finance and lease expenses	–8,375	–9,091
Gross income	**5,586**	**5,779**
Selling and administrative expenses	–2,236	–2,568
Credit provision expenses	–1,892	–729
Other operating income and expenses	106	284
Operating income	**1,564**	**2,766**
Income taxes	–404	–688
Income for the period	**1,160**	**2,079**

NEW TECHNOLOGY

ROLLOUT OF CONNECTED INSURANCE FOR CUSTOMERS IN THE US

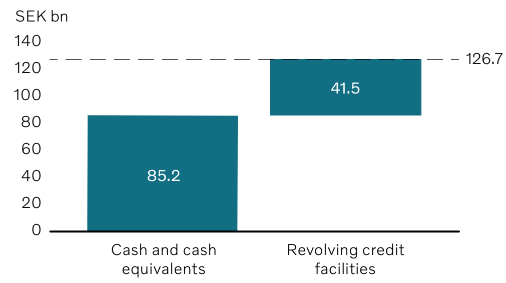
To meet the increased demands of the always-connected customer, VFS partnered with REIN®, a leading insurtech start-up company, to rollout a digital insurance solution to select US markets in 2020. The connected insurance offering uses customized data-driven solutions that simplify and increase the speed of the customer's insurance experience. This digital platform makes it easy for customers to handle their insurance-related needs, including quotes, from a mobile phone, tablet or computer. Insurance companies will have access to live data about an insured customer's vehicle and their driving behavior for faster claims support, while using telematics data to potentially reduce a customer's insurance premium based on truck usage and responsible driving history. The offering will expand nationwide in the US, with future global expansion planned for the commercial transport industry.

FINANCIAL MANAGEMENT

STRONG FINANCIAL POSITION

The objectives of the financial management in the Volvo Group is to assure shareholders long-term attractive total return and debt providers the financial strength and flexibility to secure proceeds and repayment. A long-term competitive business requires access to capital to be able to invest. Financial management ensures that the capital is used in the best possible way through well-defined ratios and objectives for the Industrial Operations as well as for the customer finance operations in Financial Services. The objective on Group operating margin and return on equity for Financial Services are intended to secure the return requirements from shareholders. The target on no net financial indebtedness under normal circumstances in the Industrial Operations and the equity ratio for Financial Services are there to secure financial stability.

Volvo Group liquidity position, December 31, 2020



Geographically diversified market programs

Credit rating, February 25, 2021	Short-term	Long-term
Moody's (Corporate Rating)	P-2	A3, stable
S&P (Corporate Rating)	A2	A–, stable
R&I (Japan)	a-1	A+, stable

Steering principles to ensure financial flexibility

To ensure financial stability and flexibility throughout the business cycle the Volvo Group holds a strong liquidity position. Besides cash and marketable securities, the liquidity position is built up of revolving committed credit facilities. Funding and lending in Financial Services are in local currency and the portfolio is matched both from an interest and a liquidity risk perspective, in accordance with the Volvo Group policy. For further information, please see Note 4 to the Consolidated financial statements.

Diversified funding sources

The Volvo Group has centralized the portfolio management of all financial assets and liabilities, funding operations and cash management through the internal bank, Volvo Treasury. The liability portfolio is separated into two portfolios, one for Industrial Operations and one for Financial Services, to correspond to the needs of the different operations. Volvo Treasury assures the possibility to access capital markets at all times through diversified funding sources. Furthermore, the Group's global presence is supported by bond programs on major debt capital markets in the world. Besides the access to capital markets around the world, the Group uses different instruments, such as bilateral bank funding, corporate bonds and certificates, hybrid bonds, agency funding as well as securitization of assets in Financial Services' credit portfolio. An increasingly important part of the treasury work is to manage increased funding needs in new growth markets.

Green Finance Framework

In November, Volvo Group launched a Green Finance Framework for the financing of investments and projects in the area of clean transportation. The framework enables the Volvo Group to issue green bonds and other green financial instruments and allows the company to identify, select, manage and report on eligible projects and assets in line with International Capital Market Association Green Bond Principles. The funds will be earmarked to projects in areas such as R&D and manufacturing of electric vehicles, machines and engines with zero tailpipe emissions. Funds will also be used by Volvo Financial Services to offer green loans to customers who buy the Group's electric products. The Green Finance Framework has been subject to an independent external assessment by CICERO Shades of Green, which has classified it as Dark Green – their highest level.

A strong and stable credit rating is important

Being a large issuer of bonds, it is critical to have a strong and stable credit rating. The level of the credit rating is not only important for debt investors but also for a number of other stakeholders when it comes to creating long-term relationships. A strong credit rating has a positive effect on the ability to attract and finance customers' purchases of the Group's products and on the trust from suppliers. It also gives access to more funding sources and lower cost of funds.

The Volvo Group has contractual relations with two global Credit Rating Agencies for solicited credit ratings: Moody's Investors Service (Moody's) and Standard & Poors' Rating Services (S&P). During 2020, neither Moody's nor S&P made any rating changes. ■

CHANGES IN CONSOLIDATED EQUITY

SEK M		Equity attributable to owners of AB Volvo						
		Share capital	Other reserves[1]	Translation reserve	Retained earnings	Total	Non-controlling interest	Total equity
Balance as of December 31, 2018		**2,554**	**254**	**4,214**	**116,356**	**123,379**	**2,452**	**125,831**
Income for the period		–	–	–	35,861	35,861	635	36,495
Other comprehensive income								
Remeasurements of defined benefit plans	Note 20	–	–	–	–2,969	–2,969	–	–2,969
Remeasurements of holding of shares at fair value	Note 5, 19	–	10	–	–	10	–	10
Exchange differences on translation of foreign operations		–	–	2,586	–	2,586	30	2,616
Share of Other comprehensive income related to joint ventures and associated companies		–	–	–	252	252	–	252
Accumulated translation differences reversed to income		–	–	–	–	–	–	–
Other comprehensive income for the period		–	10	2,586	–2,717	–121	30	–91
Total comprehensive income for the period		**–**	**10**	**2,586**	**33,143**	**35,738**	**665**	**36,403**
Transactions with shareholders								
Dividends to AB Volvo's shareholders		–	–	–	–20,335	–20,335	–12	–20,347
Share based payments	Note 27	–	–	–	–46	–46	–	–46
Changes in non-controlling interests		–	–	–	–	–	–	–
Other changes		–	–28	–	–114	–142	–21	–163
Transactions with shareholders		–	–28	–	–20,495	–20,523	–33	–20,556
Balance as of December 31, 2019		**2,554**	**236**	**6,800**	**129,004**	**138,595**	**3,083**	**141,678**
Income for the period		–	–	–	19,318	19,318	755	20,074
Other comprehensive income								
Remeasurements of defined benefit plans	Note 20	–	–	–	–1,901	–1,901	–	–1,901
Remeasurements of holding of shares at fair value	Note 5, 19	–	–6	–	–	–6	–	–6
Exchange differences on translation of foreign operations		–	–	–9,528	–	–9,528	–213	–9,741
Share of Other comprehensive income related to joint ventures and associated companies		–	–	–	–939	–939	–	–939
Accumulated translation differences reversed to income		–	–	–50	–	–50	–	–50
Other comprehensive income for the period		–	–6	–9,578	–2,840	–12,424	–213	–12,637
Total comprehensive income for the period		**–**	**–6**	**–9,578**	**16,478**	**6,895**	**542**	**7,437**
Transactions with shareholders								
Dividends to AB Volvo's shareholders		–	–	–	–	–	–778	–778
Share based payments	Note 27	–	–	–	–	–	–	–
Changes in non-controlling interests		–	–	–	–	–	–	–
Other changes		8	–	–	–201	–193	–	–193
Transactions with shareholders		8	–	–	–201	–193	–778	–972
Balance as of December 31, 2020		**2,562**	**230**	**–2,778**	**145,281**	**145,295**	**2,847**	**148,142**

1 » **Read more in Note 19** Equity and number of shares regarding specification of other reserves.

THE SHARE

SHARE PRICE INCREASE IN 2020

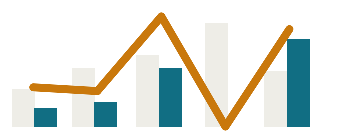
Most of the world's leading stock markets had a positive development during 2020. The price of the Volvo B share increased by 24% after having increased by 35% in 2019.

The Volvo share is listed on the stock exchange Nasdaq Stockholm, Sweden. One A share carries one vote at General Meetings and one B share carries one tenth of a vote. Dividends are the same for both classes of shares. The Volvo share is included in many indices compiled by Dow Jones, FTSE, S&P and Nasdaq Nordic.

Why invest in the Volvo share?

- Competitive products and services
- Ambition to lead the transformation of our industry to sustainable solutions
- Strong market positions globally
- Improved profitability and cash flow in recent years
- Strong financial position
- Good cash returns to shareholders

Earnings and dividend per share, dividend yield



	16	17	18	19	20
Diluted earnings per share, SEK	6.47	10.07	12.24	17.64	9.50
Dividend per share, SEK	3.25	4.25	10.00[1]	0	15.00[2]
Dividend yield, %	3.1	2.8	8.7	0	7.7

1 Ordinary dividend SEK 5.00 and extra dividend SEK 5.00.

2 Proposed by the Board of Directors. Ordinary dividend of SEK 6.00 and an extra dividend of SEK 9.00.

The Volvo share price increased

In general, the leading stock exchanges rose during 2020. On Nasdaq Stockholm the broad OMXSPI index rose by 11% after having risen by 30% in 2019. On Nasdaq Stockholm the share price for the Volvo A share rose by 24%, and at year-end the price was SEK 195.40 (158.20). The lowest closing price was SEK 99.00 on March 18 and the highest was SEK 203.00 on November 24. The share price for the Volvo B share rose by 24% and at year-end the price was SEK 193.80 (156.90). The lowest closing price was SEK 97.46 on March 18 and the highest was SEK 203.30 on November 24. In 2020, a total of 1.5 billion (1.2) Volvo shares at a value of SEK 224 billion (167) were traded on Nasdaq Stockholm, with a daily average of 5.9 million shares (4.8). In terms of value, the Volvo shares were the most traded on Nasdaq Stockholm in 2020. At year-end, Volvo's market capitalization was SEK 395 billion (335).

Share conversion option

In accordance with a resolution at the Annual General Meeting 2011, the Articles of Association have been amended to include a conversion clause, stipulating that series A shares may be converted into series B shares, on the request of the shareholder. During 2020, a total of 8,070,990 A shares were converted to B shares, representing 1.69% of the A shares that were outstanding at the end of 2019. Further information on the procedure is available on the Volvo Group's web site: www.volvogroup.com

Dividend

The Board proposes an ordinary dividend of SEK 6.00 per share for the financial year 2020 and an extra dividend of SEK 9.00 per share, which would mean that a total of SEK 30,502 M would be transferred to AB Volvo's shareholders. For the preceding year a dividend of SEK 5.50 per share and an extra dividend of SEK 7.50 per share were proposed, in total SEK 26,435 M. However, due to the uncertainty created by Covid-19 and the effects on the Volvo Group from the measures taken in various countries to slow down the spread of the virus, the Board believed that it was appropriate, as a precautionary measure, to withdraw the dividend proposals. Subsequently, the Annual General Meeting on June 18 resolved that no payment of dividend would be made and that the entire amount available would be carried forward.

Cancellation of own shares

The Annual General Meeting further resolved to adopt the Board's proposal to reduce the share capital by way of cancellation of the company's approximately 95 million own shares (treasury shares) and an increase of the share capital by way of a bonus issue in order to restore the share capital.

Communication with shareholders

Dialogue with the shareholders is important for Volvo. In addition to the Annual General Meeting and a number of larger activities aimed at professional investors, private shareholders and stock market analysts, the relationship between Volvo and the stock market is maintained through such events as press and telephone conferences in conjunction with the publication of interim reports, meetings with retail shareholders' associations, investor meetings and visits, as well as roadshows in Europe and North America. On volvogroup.com it is possible to access financial reports and search for information concerning the share and statistics for truck deliveries. It is also possible to access information concerning the Group's governance, including information about the Annual General Meeting, the Board of Directors, Group Management and other areas that are regulated in the "Swedish Code of Corporate Governance." The website also offers the possibility to subscribe to information from the company.

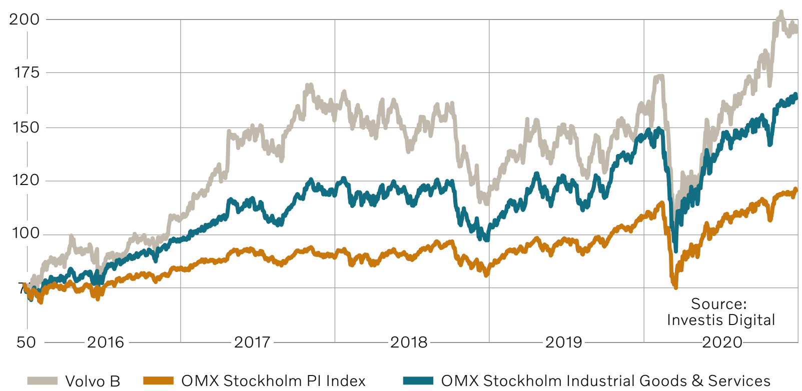
Volvo has decided to present its Corporate Governance Report as a separate document to the Annual Report in accordance with Chapter 6 § 8 of the Swedish Annual Accounts Act and it is available on pages 172–187 of this Annual and Sustainability Report.

Contractual conditions related to takeover bids

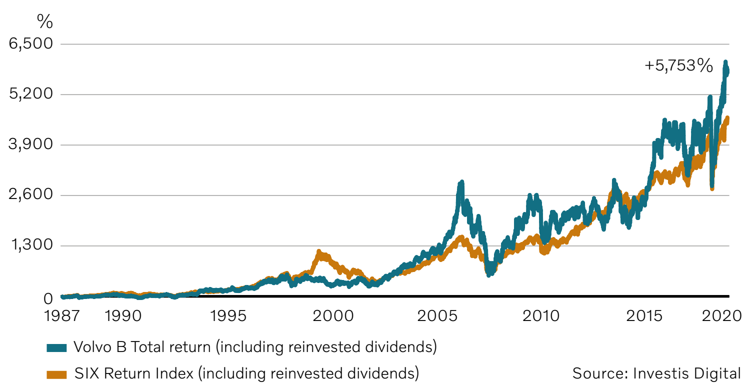
Provisions stipulating that an agreement can be changed or terminated if the control of the company is changed, so called change of control clauses, are included in some of the agreements whereby Renault Trucks has been given the right to sell Renault s.a.s. and Nissan Motor Co. Ltd's light-duty trucks as well as in some of the Group's purchasing agreements.

Some of Volvo Group's long-term loan agreements contain conditions stipulating the right for a bondholder to request repayment in advance under certain conditions following a change of the control of the company. These clauses are not unusual in loan agreements. In AB Volvo's opinion it has been necessary to accept those conditions in order to receive financing on otherwise acceptable terms. ■

Price trend, Volvo B share, 2016–2020 SEK



Accumulated total return of the Volvo B share



The graph shows that SEK 1,000 invested in the Volvo B share on January 2, 1987 had grown to SEK 58,530 at the end of 2020, under the condition that all dividends have been reinvested in Volvo B shares.

The shareholders with the largest voting rights in AB Volvo, December 31, 2020

	Voting rights, %	Capital, %
Industrivärden	27.5	8.4
Geely Holding	15.9	8.2
AMF Insurance & Funds	5.6	3.4
Alecta	4.7	3.9
Norges Bank Investment Management	4.2	2.4

Share capital, December 31, 2020

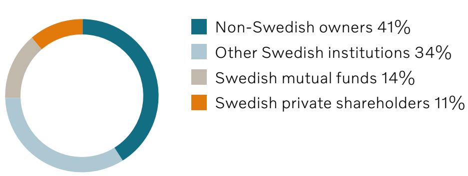
Number of shares	2,033,452,084
of which, Series A shares[1]	448,113,346
of which, Series B shares[2]	1,585,338,738
Share capital, SEK M	2,554
Number of shareholders	283,731
Private persons	269,845
Legal entities	13,886

For further details on the Volvo share, see Note 19.

1 Series A shares carry one vote each.

2 Series B shares carry one tenth of a vote each.

Ownership by categories[1]



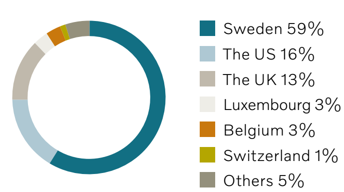
» More details on the Volvo share shares are provided in Note 19 to the financial statements and in the Eleven-year summary.

Employees' ownership of shares in Volvo through pension foundations is insignificant.

Source: Euroclear

1 Share of capital

Ownership by country[1]



Source: Euroclear

1 Share of capital

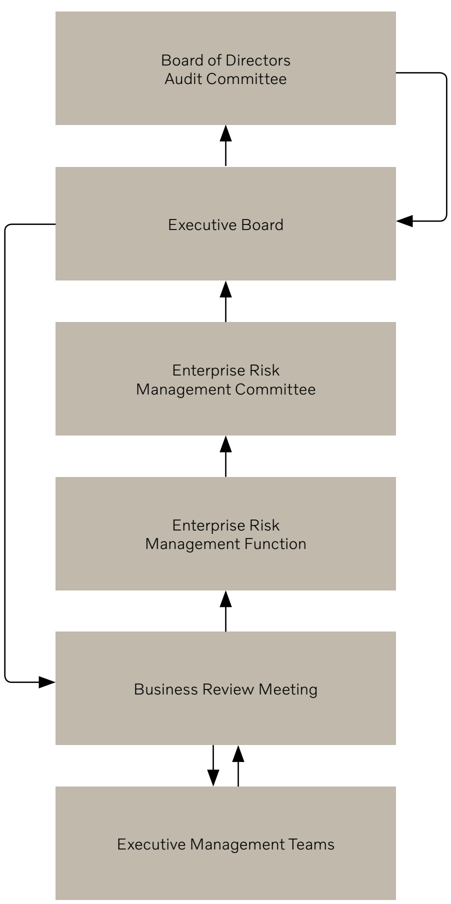
RISKS AND UNCERTAINTIES

MANAGED RISK-TAKING

Each of the Volvo Group's Business Areas and Truck Divisions monitors and manages risks in its operations. In addition, the Volvo Group utilizes a centralized Enterprise Risk Management (ERM) reporting process, which is a systematic and structured framework for reporting and reviewing risk assessments and mitigations as well as for following up on identified risks.

Enterprise Risk Management Governance

For the governance model of the Volvo Group, please see page 173.



The Board of Directors monitors risks and mitigation activities annually and the Audit Committee biannually through the consolidated ERM report.

The Executive Board analyzes accuracy of reported risks and mitigation activities and ensures alignment to strategic and operational agenda.

The ERM Committee reviews, analyzes and challenges compiled risks and mitigation activities three times per year. The committee consists of the Executive Vice President Group Finance, Executive Vice President Legal & Compliance, Senior Vice President Group Treasury & Corporate Finance and Senior Vice President Group Reporting, Tax and Control.

Each Business Area and Group Truck Division reports its largest risks and mitigation activities three times per year to the ERM function, which reviews and compiles reported risks into the Group ERM report.

Business review meetings in each Business Area and Group Truck Division identifies, mitigates, monitors and analyzes its largest risks. This forms the basis for the ERM reporting.

Executive Management Teams in each Business Area and Group Truck Division are fully responsible for risk and miti gation management in their respective area. Risks are identified, mitigation activities are established, and monitoring and reporting of progress is part of daily operations.

Risk categories

The ERM process classifies Volvo Group risks into five categories:

- Macro and market related risks
- Operational risks
- Climate and society risks
- Compliance risks
- Financial risks.

Principal risks

The following pages present principal risks and uncertainties the Volvo Group are facing within each risk category. These risks can, separately or in combination, have a material adverse effect on the Group's business, strategy, financial performance, cash flow, shareholder value or reputation.

MACRO AND MARKET RELATED RISKS

Cyclical commercial vehicles industry

The Volvo Group's customers operate all over the world, some within a single country and others across borders. A multitude of global and regional economic, regulatory, digital, technological, climate and energy resource efficiency factors create strategic as well as operational challenges for the industry.

Like many capital goods industries, the commercial vehicle industry generally has been cyclical, with a strong correlation to GDP and corresponding changes in transport demand, the need to replace aging vehicles and machines, as well as changing laws and regulations. Although there is a continued shift in focus in the commercial vehicle industry from product to service, the cyclicality in sales and profitability remains. The fluctuating demand for the Group's products and services makes the financial result of the operations dependent on the Group's ability to react quickly to market changes.

Inability to adapt to a fluctuating demand could lead to capacity constraints or underutilization of resources, which could have a negative effect on earnings and financial position.

Comment

The Volvo Group strives to continuously balance production levels and operating expenses, as well as enhance business agility in fulfilling demands for new services.

Intense competition

The Volvo Group operates in markets which are highly competitive, and we face intense competition from global and local industry incumbents. We may also encounter increased competition from new market entrants, e.g. within the areas of sustainable transportation and increased logistics efficiency, new technologies and new business models, where current or new competitors may implement new technologies before the Volvo Group does, or may offer more attractively priced or enhanced products, services or solutions.

Comment

Given the width of brands within the Group, it is important to utilize synergies and economies of scale while at the same time empower the Business Areas to take responsibility for their businesses and offers. Continuous focus on diverse product, service and solution development to create customer and society value, together with a close monitoring of our competitors, are important components in our strategy to be a future industry leader.

Extensive government regulations

Regulations regarding exhaust emissions, noise, safety and pollutants from production plants and products are extensive and evolving. Most of the regulatory challenges affecting the product range relate to reduced emission levels. In response to this, the Volvo Group has, and expects to continue to have , significant expenditures in research and compliance to meet all applicable regulations. The Group also endeavors to collaborate and be transparent with all governing bodies in certification and compliance processes, during development and throughout the lifecycle of Group products as well as in investments in production plants. It is of strategic importance to the Group to be able to comply with current and future emission standards and other applicable rules, and in the future the Group expects to spend even more in R&D investments to safeguard compliance with these regulations. Risks for the Group in this area include noncompliance with applicable regulations, which may result in reputational damage and significant penalties and costs of recalls and other remediation, and also failure to assure an updated and compliant product range in time to meet regulations.

Safety regulations are also becoming increasingly important with autonomous vehicles in commercial applications. If regulations are not set, or clear enough, there is risk of not being able to scale up the autonomous offer, or not complying with regulations. A safety incident could have a detrimental effect on the Group's brand image and possibly earnings. An incident in the industry could also lead to quickly adjusted or new regulations.

Local protectionism leading to changes in local content requirements can put the Volvo Group at a disadvantage compared to local competitors, cause increased sourcing costs or require Volvo to make significant investments.

Comment

The product development capacities within the Volvo Group are coordinated, enabling a focus of resources for research and development to meet emission regulations.

Political instability, security

The Volvo Group is active in more than 190 countries across the world. Political instability, armed conflicts or civil unrest can impact the Group's ability to trade in affected areas. Acts of terrorism, sabotage or other criminal or illicit activities directed towards the Volvo Group's production system, transports or facilities, or those of its suppliers or customers, could cause harm to people and severely damage the Group's operations. The geopolitical situation, including e.g. ongoing trade discussions between USA and China and the Brexit process, may also give rise to further tariffs and other trade restrictions and barriers being imposed, which can negatively impact the Group's production system and ability to conduct its operations.

Comment

The Volvo Group strives to identify and monitor vulnerabilities and implement appropriate measures to mitigate identified risks to avoid, prevent, reduce or transfer the impact.

OPERATIONAL RISKS

Technology shift and convergence

Balancing the research and development resources between the traditional and new technologies is strategically important for the Volvo Group. New technologies arising from the increasing awareness of climate change and the digitalization will enable autonomous, electric and connected vehicles to deeply impact the transport, logistics and construction industries – among others. The effect will be particularly strong at the convergence of these technologies as it affects vehicles, assets as well as infrastructures, and opens the way for a paradigm shift.

The lack of broadly accepted technologies and standards poses significant risks for the Volvo Group and other participants in these industries, as they are required to choose relevant technologies, time their introduction wisely, while respecting the wide spread in readiness level among markets and segments across the globe. The fact that various countries, and even within regions, have different climate related and environmental laws and regulations may lead to higher costs for the Volvo Group.

A further level of risk relates to the need to evolve from a vehicle/product focus towards an ecosystem-driven approach, where vehicles and infrastructures are to be developed and implemented simultaneously.

If the Volvo Group positions itself unsuccessfully in this technology shift, earnings capacity and financial standing could be severely affected.

Comment

The Volvo Group is striving to lead the technology development. Together with customers, suppliers, and partners, Volvo Group explores new technologies, technology viability, desired features, and cost, safety, climate and environmental impact. The Volvo Group offers products and solutions which can support customers in reducing their environmental impact. This includes fuel efficiency, electrification and alternative fuels to reduce emissions from vehicles and machinery, as well as autonomous and connected solution and services to increase efficiency and productivity.

Customer satisfaction and demand

Top priority for the Volvo Group is to support its customers' businesses and profitability in order for them to succeed, regardless of segment, brand, product or service. Customer satisfaction is reliant on the expectations in relation to the actual delivery or user experience of the total offer.

Customer demands are increasingly influenced by higher sustainability ambitions and stricter requirements from customers and end users on products and services.

Customer satisfaction and demand, and thereby the Group's sales and revenues, is at risk if the total experience is not at the expected level, price point or time.

Comment

The Volvo Group strives for a culture where customer success is at the heart of everything. Regardless of where in the value chain, the Group engages in understanding its customers' business and focus efforts on creating value from the customer's perspective.

The Volvo Group also puts a lot of effort on market research and customer interviews to secure knowledge of customer needs. Within product development, the Group has implemented a project gate model and a governance structure where risks regarding project and product quality, cost, project lead time and product features are constantly monitored.

Staff at retailers and workshops are continuously trained and provided with instructions and guidelines on how to interact with their customers to provide the best product life cycle profitability.

Industrial operations

Our ability to deliver according to market demand depends significantly on obtaining a timely and adequate supply of materials, components and other vital services, as well as on our ability to properly utilize the capacity in the Group's different production and services facilities. The Group strives to produce components as well as complete vehicles and machines, and supply material to customers and factories in a sustainable and resource-efficient way. Our supply-chain and industrial system may be affected by several factors, including shortages of materials and components, shortages of transport services, global trade discussions and other geopolitical developments as well as strikes, pandemics or extreme weather. Each of these factors could result in stoppages in production, operations and parts deliveries, which could have a material negative effect on the Group's financial performance

Electrification of the products also poses higher risks of fires and harmed personnel as high voltage systems are introduced into the production facilities.

Comment

The organization is continuously working to manage and mitigate disturbances of the supply chain and in the industrial system The Group also seeks to mitigate risks by the integration of the industrial system itself through, among other things, improving the ability to manufacture and source from other Volvo Group sites and proactive monitoring of the supply chain. However, there can be no assurance that any such actions are sufficient to manage supply chain or industrial system disturbances at any given time.

The contributions to reducing environmental impact from the Group's operations include improving efficiency in the use of natural resources like water, energy and chemicals, reducing the dependency on hazardous substances, preventing adverse impacts from emissions to land, water and air, and strategically working to increase renewable energy use and reduce CO_2 emissions.

Reliance on suppliers and scarce materials

The ongoing technology shift into electrification and other new customer offerings, combined with required investments in traditional technologies, may move the industry and the Volvo Group towards reliance on new suppliers, new materials and on materials being used in new applications and in different quantities compared to traditional technologies. Some of these materials may pose a risk of supply due to scarcity or geopolitical, conflict or human rights concerns. At the same time the suppliers providing more traditional products might lose business and risk closing, which could leave the Volvo Group with a shortage of suppliers in a particular area and thereby a need to make investments.

Comment

To manage the high volatility in the commercial vehicle market, capacity management is a focus area. Another focus area is life-cycle assessments to manage life-cycle effects on environment and human rights in the supply chain. This is a key component of the Group's environmental policy.

Cybersecurity and IT infrastructure

The operation of many of the Volvo Group's business processes depends on reliable information technology (IT) systems and infrastructure. This applies to e.g. production, logistics and sales, as well as products using connectivity and automation features. Disruptions, cyberattacks and other security threats against our products or business could harm the Volvo Group's operations, reputation and have a significant adverse effect on earnings and financial position. Timely detection of cybersecurity and other security incidents is becoming increasingly complex, and the Volvo Group seeks to investigate and manage incidents with a view to prevent their recurrence.

The Volvo Group relies on third parties where significant parts of maintenance and operations of the IT systems has been outsourced. The Volvo Group has taken precautions in the selection and ongoing management of these third parties, but events or incidents caused by vulnerabilities in their operations or products could cause disruption of operations and loss or leakage of data.

Comment

The Volvo Group strives to identify and monitor vulnerabilities and implement appropriate measures to mitigate identified risks to avoid, prevent, reduce or transfer the impact. Security incidents that potentially involve personal data breach are managed as part of the Volvo Group Data Protection compliance program.

Mergers and acquisitions, partnerships and divestments

In addition to the Volvo Group's in-house work and focus on organic growth, we engage in acquisitions and divestments, as well as in JVs, partnerships and other forms of cooperation. This is essential parts in executing on our strategy. However, there can be no assurance that these transactions and cooperations become or remain successful, nor that they will deliver expected benefits. Acquisitions could e.g. result in incurrence of contingent liabilities and an increase in amortization expenses and impairments related to goodwill and other intangible assets, as well as unanticipated difficulties in integration of an acquired entity. Divestments could present risks in e.g. the operational separation or through contractual undertakings or legal liabilities with respect to the business divested.

JVs and partnerships may fail to perform as expected for various reasons, including our or our partner's incorrect assessment of needs and potential synergies, a failure to invest sufficient resources in the cooperation or a change of strategic direction that the cooperation fails to accommodate. Further, JVs and partnerships may restrict e.g. our ability to run independent operations within the scope of cooperation, and limitations in our or our partner's operational and financial resources may restrain the capabilities of the cooperation.

Comment

Volvo Group evaluates potential acquisitions, business partners and JV's cross-functionally by following a four steps approach: 1) assess the strategic need, 2) define key areas to be filled, 3) collect and assess data, 4) present an informed and fact-based proposal for decision. The Group also makes in-depth analyses of selected projects after completion, to benefit from lessons learned.

Residual value commitments

If the Volvo Group is offering the customer a residual value commitment, it means that the customer can return the asset at the agreed date and to the agreed price.

Volvo Group will have a residual value risk if the rebought vehicle can be sold only for a price below the vehicle's committed residual value. A residual value commitment can also become a future used vehicle inventory risk if vehicles are not sold, affecting the cash flow negatively.

Comment

In order to minimize the risk and the impact on future profitability, the Volvo Group has established processes and procedures within each Business Area, where each Business Area assumes the responsibility for establishing and maintaining a residual value matrix to reflect fair future market values, proactive planning and management of expiring contracts as well as portfolio evaluation. For further information on residual value commitments as per December 31, 2020, please see Note 13 Tangible assets.

CLIMATE AND SOCIETY RISKS

Pandemics

The outbreak of pandemics throughout the world, such as the ongoing Covid-19 pandemic, may lead to major disruptions in the economies of many countries, including the Group's key markets, and can be expected to impact economic activity negatively going forward. The Covid-19 pandemic has had and might also continue to have an adverse effect on demand for the Group's products and services and on the financial performance of the Group. The duration and expected development of the Covid-19 pandemic is unknown, and no predictions can be made in relation to the length of present, and further measures that different countries and others may take in response to the crisis. However, any prolongation or worsening of the virus outbreak may lead to e.g. the following:

- the extension of containment measures and restrictions on freedom of movement in the Group's key markets,
- key suppliers experiencing severe financial difficulties,
- shortages of necessary material and parts from suppliers directly or indirectly affected by the virus outbreak that may in turn lead to supply chain disruptions and production downtimes,
- a larger number of customers directly or indirectly affected by the virus outbreak having difficulties, or being prevented from, making payments to the Group when due,
- further price pressure on new and used vehicles, which may give rise to write-downs or further reserve requirements with respect to vehicles in stock and residual value commitments,
- impairments of goodwill and other intangible assets,
- further disruption of financial markets and/or
- a prolonged global economic downturn leading to a more severe reduction in demand for Group products.

Given the evolving nature of the crisis, the above list is not exhaustive, but each of these events, or any combination of them, could amplify the negative impact of the crisis on the Group's financial performance and have material adverse effect on the Group's business, financial development and shareholder value.

Comment

Managing the immediate challenges and consequences of the Covid-19 pandemic has been an important part of the work throughout 2020 and provided experience and learnings for future events. This work has involved teams on all levels in the Group, including local task forces, focusing on our colleagues, customers and business partners, with health and safety as first priority while maintaining a tight cost control and focus on cash.

Climate related and environmental regulations

International agreements on limiting the CO_2 emissions, such as the Paris Agreement, together with related national and regional initiatives leads to continued and increased attention to climate change and influence regulatory development. Environmental legislation is developing in areas such as vehicle regulations on CO_2 and on emission standards as well as chemical substance and noise regulations. Compliance with fuel efficiency and emission control requirements might lead to a need to accelerate introduction of significant volumes of electric vehicles as well as implementing additional new technologies for conventional diesel engines. This could lead to increased costs and potentially pose a transformative risk as there can be no assurance that these technologies can be produced and sold profitably or that customers will purchase those in the quantities needed to meet the regulatory requirements. These developments increase the need for monitoring and adaption to new requirements. Even if challenges in these areas are resolved and handled, they could have a negative impact on the Group's reputation, usage of resources, and cost of production, and may result in adverse effects on earnings and financial position.

Comment

To mitigate risks and impact in the climate related and environmental regulatory area, the Volvo Group invests substantial resources to adhere to different legislations throughout the entire value chain. Examples of these are:

- Monitoring of upcoming climate related and environmental regulations and initiatives which could have an impact on the business
- Governance structure to address upcoming climate related and environmental requirements
- Prioritizations and investment decisions in regular operational processes.

Human capital

The Volvo Group strongly believes that there is a high correlation between the Group's future success and its capability to recruit, retain and develop qualified personnel. To meet expectations from employees and other stakeholders, a strong focus is required on areas such as leadership, empowerment, employee engagement, human rights, company culture and values, sharing of knowledge, and building diverse teams. Failure to do the right things in these areas can cause a negative impact on the Volvo Group's reputation, as well as on the image as an employer and on the ability to recruit, retain and develop the knowledge and skills of the employees necessary to ensure customer success.

Comment

This risk is managed by leveraging the full diversity of the workforce to ensure business success on a global arena and the Volvo Group continuously monitoring changing legislation to ensure compliance. The Volvo Group Pulse survey has been complemented by other tools and processes designed to increase dialogue, which allows the Group to capture the voice of employees and strengthen engagement. By uniting employees through a common set of behaviors that are in line with the business ambitions, the Group consciously grows an inclusive culture and a value-based leadership.

Human rights

The Volvo Group is committed to respect human rights in line with applicable legislation throughout the world, relevant global frameworks as well as its own standards. Adverse human rights impacts may potentially materialize not only within the Group's own organization, but also through the Group's business relationships and in the value chain. The Group is aware that conducting business in certain parts of the world constitutes higher risks for potential human rights violation and therefore has identified certain countries where the Volvo Group has a substantial number of employees and/or close business partners that are considered to have elevated risk in this respect. The Group is also aware that certain purchasing and customer segments constitutes higher risks for negative human rights impacts.

The consequences of human rights risks for the Volvo Group could range from liability to reputational and brand damage, depending also on the severity of the nature of harm done. This depends on whether the Group is seen in breach of applicable laws or is seen as causing, contributing to or being directly linked to the harm done, as defined in the United Nations Guiding Principles on Business and Human Rights.

Comment

People are at the core of what the Volvo Group does. In the Volvo Group Code of Conduct and Supplier Code of Conduct, human and labor rights issues such as mutual respect, non-discrimination, safe and healthy workplace, freedom of association and collective bargaining, working hours and compensation, as well as modern slavery and child labor are emphasized.

COMPLIANCE RISKS

Non-compliance with data protection laws

Data protection laws apply to the Volvo Group in the jurisdictions in which Volvo operates. The EU General Data Protection Regulation ("GDPR"), which became applicable from May 2018, has introduced increased monetary penalties for breaches of the regulation. Non-compliance with data protection laws could expose the Group to fines and penalties and severe infringements may potentially cause authorities to issue instructions to stop processing of personal data, which could disrupt operations. The Group could also be faced with litigations from persons allegedly affected by data protection violations. Data protection law infringements may hence involve severe negative impact for the business operations, including reputational damage and adverse effect on the Group's earnings and financial standing.

Comment

The data privacy area is closely monitored to identify improvement areas, as well as potential issues that may have a negative impact on the Volvo Group. The Code of Conduct emphasizes the importance of compliance with data protection legislation and a Volvo Group Data Privacy Compliance Program has been established. Further, the Group Privacy Office (and connected network) manage implementation, monitoring and training in respect of the compliance program.

Intangible assets

The Volvo Group owns or otherwise has rights to patents, trademarks, designs and copyrights that relate to the products and services that the Group manufactures and markets. These rights have been developed or acquired over a number of years and are valuable to the operations of the Volvo Group. Further, in order to safeguard investments in R&D, the Volvo Group has an intellectual property plan defining the creation and use of its intellectual property rights.

The share of trade in counterfeit goods as a proportion of global trade has grown significantly. Products infringing on Volvo Group's intellectual property rights are often of substandard quality and poses risks to the Group regarding the vehicle performance, like safety, quality and emission levels that will affect the climate, as well as the corporate brand reputation.

AB Volvo and Volvo Car Corporation jointly own the Volvo brand and trademarks through Volvo Trademark Holding AB. AB Volvo has the exclusive right to use the Volvo name and trademark for its products and services and according to a license agreement. Similarly, Volvo Car Corporation has the exclusive right to use the Volvo name and trademark for its products and services. The Volvo Group's rights to use the Renault brand and trademarks are related to the truck operations only and are regulated by a license from Renault s.a.s., which owns the Renault brand and trademarks. In addition, the Volvo Group owns several other trademarks relating to its business. Use in possible conflict with third-party intellectual property rights, or third-parties' unauthorized use of the Volvo Group's proprietary rights, may have significant business impact on the Group.

Comment

The Volvo Group is continuously assessing intellectual property rights of third parties as well as possible infringements by third parties of the Group's intellectual property rights.

Legal proceedings

In the normal course of business, the Volvo Group is involved in legal proceedings. These proceedings may relate to a number of topics, including vehicle safety and other product related claims, warranty claims, commercial disputes, intellectual property claims, allegations concerning health, environmental or safety issues, antitrust, tax or labor disputes and regulatory inquiries and investigations. Further, AB Volvo and other companies in the Group, as well as their officers, may be subject to claims alleging failures to comply with stock market regulations, securities law and other applicable rules and regulations. Legal proceedings can be expensive, lengthy, take up resources that could be used for other purposes and are often difficult to predict. There can be no assurance that provisions, where recognized, for a particular legal proceeding will cover the costs of an adverse outcome, nor that unprovisioned proceedings will not give rise to any significant additional expenditure. Information about certain legal proceedings involving entities within the Volvo Group, see Note 21 Other Provisions and in Note 24 Contingent Liabilities.

Comment

The Volvo Group has well-established structures and processes in place to evaluate and handle complaints and legal proceedings with the purpose of mitigating legal risks for the Group.

Corruption and non-compliance with competition law

Corruption risks are primarily linked to the activities of the Volvo Group's business partners (distributors and sales agents), for which the Group may be responsible, as well as to the behaviors of employees in situations in relation to public officials and other customer representatives. The overall risk level is also affected by the fact that Volvo pursues business operations in markets that are considered high-risk from a corruption perspective. Potential risks for non-compliance with competition law (e.g. price fixing, market sharing, unlawful information exchange, abuse of market power) are primarily linked to behavior of employees when interacting with competitors and other external stakeholders in various situations. Corruption as well as competition law infringements may involve severe negative impacts for the business operations, including reputational damage, legal proceedings, fines and imprisonment of employees. The Group could also be affected by claims raised by persons or entities affected by allegedly non-compliant practices.

Comment

Corruption-related risks are managed via the Volvo Group's Anti-Corruption Compliance Program, which consists of different mitigating activities including anti-corruption due diligence of business partners. This is to ensure that the Group selects the right business partners to prevent corrupt practices in connection with the sale of products and services. As regards to employees and contractors, the Code of Conduct emphasizes that Volvo employees and contractors may not participate in or endorse any corrupt practices. The Code of Conduct also emphasizes that the Group competes on the merit of products and services and do not take actions that are illegal under the competition laws, such as colluding with competitors. Also, regular training is provided.

FINANCIAL RISKS

Insurance

The Volvo Group generally takes out insurance coverage where it is legally or contractually obligated to do so and otherwise against such risks, in such amounts and on terms that it considers commercially motivated from time to time. Where insurance coverage cannot be procured on such terms, the Group can be exposed to material uninsured losses, which could have a materially adverse effect on Group operations and financial standing. For example, the Group has substantial operations in Japan that are not fully insured against effects from flooding, earthquakes and other natural disasters.

Comment

The Volvo Group strives to identify and monitor vulnerabilities and implement appropriate measures to mitigate identified risks to avoid, prevent, reduce or transfer the impact. This is a recurring process that adapts to changes in the risk and operational environment.

Credit risk

The Volvo Group is exposed to credit risk mainly through its sales to customers in the Industrial Operations, and its long-term credit receivables in its Financial Services operations. Total exposure as of December 31, 2020 can be found in Note 15 Customer-financing receivables, and Note 16 Receivables. The Group is also exposed to financial credit exposure due to short-term deposits with the Group's core banks and unrealized results from derivatives used for hedging purposes. For further information, please see Note 4 Goals and policies in financial risk management and Note 15 Customer-financing receivables. If several larger customers, dealers, or a core bank, fails to meet its undertakings the Group could suffer significant losses.

Comment

The Volvo Group has set clear principles for how to manage external customer relationship, including customer assessment, how to manage and measure exposure and mitigate risks, monitoring of the economic, political and industry conditions in each market, financing solutions, collection procedures and performance follow-up structure. The Group has several so-called CSA (Credit Support Annex) agreements in place in order to decrease credit exposure arising from hedge activities with financial derivatives.

Pension commitments

The Volvo Group has substantial pension commitments, some of which are owed under defined benefit plans. Changes in assumptions of interest and inflation rates, mortality, retirement age and pensionable remunerations could result in significant changes to the present value of already accrued benefit obligations as well as the cost of new benefit accruals, affecting funding level of such plans. The investment performance of pension assets may also substantially affect funding levels. Defined benefit plan assets are managed independently from the Group, with a significant portion of plan assets held in shares and other similar instruments that are exposed to market risks. Please see Note 20 Provisions for post-employment benefits for further information.

If there is a shortfall in benefit plans, the Volvo Group could be required to make substantial unexpected cash contributions, which would adversely affect cash flow and the Group's financial position.

Comment

The exposure is controlled in the short term by ensuring strict adherence to each plan's investment policy and by proactively implementing portfolio de-risking strategies when deemed necessary.

Interest rate risk

Volvo Group's net financial debt structure is exposed to fluctuations in market interest rates. Movements in interest-rate levels may impact the Group's net income and cash flow or the value of financial assets and liabilities.

Comment

Industrial Operation's interest-rate fixing for net financial debt is kept short, i.e. below six months, to leverage on the countercyclical relationship of short-term interest rates. Financial Services funding and lending shall be matched to mitigate undesired volatility in profitability due to interest-rate risk.

Currency risk

The Volvo Group's global presence means that business is conducted in several different currency regions. More than 95% of the Group's net sales are generated in countries other than Sweden. The Volvo Group's cash flow, profitability, and balance sheet are impacted by fluctuations in foreign exchange rates.

Comment

The Volvo Group strives to have sourcing and manufacturing located in the major markets which offsets structural currency exposures, and actively manages currency flows and translation risk to reduce the impact on profitability and cash flow.

Liquidity risk

It is of critical importance for the Volvo Group to assure a sufficient payment capability over time, to continuously manage demands and expectations from external stakeholders.

Sudden changes in the business cycle, unforeseen events within the financial markets, changes in the Volvo Group's access to financial markets, and changes in customers' appetite for financing from the Group, may stress the Group's liquidity preparedness.

Failure to properly manage the Group's liquidity risks, may cause material adverse impact on earnings capability and financial standing.

Comment

The Volvo Group ensures sound financial preparedness by always keeping a certain portion of its sales in liquid assets. A sound balance between short- and long-term debt maturities as well as long-term committed credit facilities and cash, are intended to secure liquidity preparedness and thus the Volvo Group's payment capability.

Impairment

The Volvo Group has substantial values in goodwill and other intangible assets on its balance sheet. There is a risk for impairment if the calculated recoverable amount is lower than the carrying amount. Please see Note 12 Intangible assets. The calculated recoverable amounts differ between the operating segments and they are, to a varying degree, sensitive to changes in the business environment. Instability in the business performance and volatility in interest and currency rates may indicate a need for impairment.

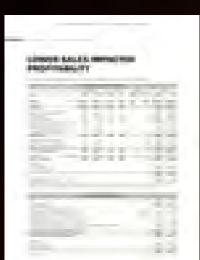
Comment

Goodwill and capitalized development cost not yet in use are evaluated yearly or at any indication of impairment. Other intangible assets, with finite useful lives, are evaluated in case of indication of impairment.

GROUP PERFORMANCE 2020

NOTES

FINANCIAL STATEMENTS



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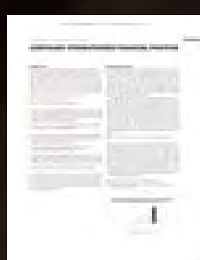

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STATUTORY SUSTAINABILITY REPORT

The Volvo Group has prepared a sustainability report in accordance with the Global Reporting Initiative's guidelines (GRI Standards) and the non-financial disclosure requirements in the Swedish Annual Accounts Act. The Volvo Group's sustainability report consists of the Sustainability Notes on pages 150-171 together with all other relevant sustainability disclosures in this Annual and Sustainability Report, see:

» Strategy and business model, pages 6–39
» Policies, assessments and results, pages 150–171
» Material risks and mitigation, pages 68–75 and 150–171
» Key performance indicators, pages 150–171

NOTES TO FINANCIAL STATEMENTS

Amounts in SEK M unless otherwise specified. The amounts within parentheses refer to amounts for year 2019.

1 ACCOUNTING POLICIES

The consolidated financial statements for AB Volvo and its subsidiaries are prepared in accordance with International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board (IASB), as adopted by the European Union, EU. This Annual Report is prepared in accordance with IAS 1 Presentation of Financial Statements and the Swedish Annual Accounts Act. In addition, RFR 1 Supplementary Rules for Groups has been applied, which is issued by the Swedish Financial Reporting Board.

Accounting policies	Note	IFRS standard
Assets and liabilities held for sale and discontinued operations	3, Acquisitions and divestments of shares and operations	IFRS 5, IFRS 13
Acquisitions and divestments	3, Acquisitions and divestments of shares and operations	IFRS 3
Joint ventures	5, Investments in joint ventures, associated companies and other shares and participations	IFRS 11, IFRS 12, IAS 28
Associated companies	5, Investments in joint ventures, associated companies and other shares and participations	IFRS 12, IAS 28
Other shares and participations	5, Investments in joint ventures, associated companies and other shares and participations	IFRS 7, IFRS 9, IFRS 13, IAS 28, IAS 32
Operating segments	6, Segment reporting	IFRS 8
Revenue	7, Revenue	IFRS 9, IFRS 15, IFRS 16
Financial income and expenses	9, Other financial income and expenses	IFRS 9
Income taxes	10, Income taxes	IAS 12
Non-controlling interest	11, Non-controlling interest	IFRS 10, IFRS 12
Research and development	12, Intangible assets	IAS 23, IAS 36, IAS 38
Goodwill	12, Intangible assets	IFRS 3, IAS 36, IAS 38
Tangible assets	13, Tangible assets	IFRS 13, IFRS 16, IAS 16, IAS 23, IAS 36, IAS 40
Leasing	14, Leasing	IFRS 16
Inventories	17, Inventories	IAS 2
Earnings per share	19, Equity and number of shares	IAS 33
Pensions and similar obligations	20, Provisions for post-employment benefits	IFRS 2, IAS 19
Residual value risks	21, Other provisions	IFRS 15, IAS 37
Product warranty	21, Other provisions	IAS 37
Technical goodwill	21, Other provisions	IAS 37
Restructuring costs	21, Other provisions	IAS 19, IAS 37
Extended coverage and service contracts	21, Other provisions	IFRS 15, IAS 37
Insurance operations	21, Other provisions	IFRS 4
Contingent liabilities and contingent assets	24, Contingent liabilities and contingent assets	IAS 37
Transactions with related parties	25, Transactions with related parties	IAS 24
Government grants	26, Government grants	IAS 20
Incentive programs	27, Personnel	IAS 19
Cash flow statement	29, Cash flow	IAS 7
Financial instruments	4, Goals and policies in financial risk management	IFRS 7, IFRS 9
	15, Customer-financing receivables	IFRS 7, IFRS 9, IFRS 13, IFRS 16, IAS 32
	16, Receivables	IFRS 7, IFRS 9, IFRS 13, IAS 32
	18, Cash and cash equivalents	IFRS 7, IFRS 9, IFRS 13, IAS 32
	22, Liabilities	IFRS 7, IFRS 9, IFRS 13, IAS 32
	30, Financial instruments	IFRS 7, IFRS 9, IFRS 13, IAS 32

VOLVO GROUP'S ACCOUNTING POLICIES

The Volvo Group describes the accounting policies in conjunction with each note in the aim of providing enhanced understanding of each accounting area. The Volvo Group focuses on describing the accounting choices made within the framework of the prevailing IFRS standard and avoids repeating the actual text of the standard, unless the Volvo Group considers it particularly important to the understanding of the note's content. The following symbols I/S and B/S show if amounts in the notes can be found in the income statement or balance sheet. The total amount in tables and statements might not always summarize as there are rounding differences. The aim is to have each line item corresponding to the source and it might therefore be rounding differences in the total. Refer to the table below to see the note in which each accounting policy is applicable and the relevant IFRS standard with material impact.

Consolidated financial statements

Principles for consolidation

The consolidated financial statements comprise the parent company, subsidiaries, joint ventures and associated companies. Intra-group transactions as well as gains on transactions with joint ventures and associated companies are eliminated in the consolidated financial statements.

» **Read more in Note 3** Acquisitions and divestment of shares and operations.

» **Read more in Note 5** Investments in joint ventures, associated companies and other shares and participations, about definitions of subsidiaries, joint ventures and associated companies.

» **Read more in Note 11** Non-controlling interest.

Translation to Swedish kronor when consolidating companies that have other functional currencies

The functional currency of each Volvo Group company is determined based on the primary economic environment in which the company operates. The primary economic environment is normally in which the company primarily generates and expends cash. The functional currency is in most cases, the currency in the country where the company is located. AB Volvo's and the Volvo Group's presentation currency is SEK. In preparing the consolidated financial statements, items in the income statements of foreign subsidiaries are translated to SEK using monthly average exchange rates. Balance sheet items are translated into SEK using exchange rates at year end (closing rate). Exchange differences are recognized in other comprehensive income and accumulated in equity.

The accumulated translation differences related to a certain subsidiary, joint venture or associated company are reversed to the income statement as a part of the gain/loss arising from disposal of the company or repayment of capital contribution from the company.

Receivables and liabilities in foreign currency

Receivables and liabilities in currencies other than the functional currency of the reporting entity (foreign currencies) are translated to the functional currency using the closing rate. Exchange rate gains and losses arising from operating assets and liabilities impact operating income while exchange rate gains and losses arising from financial assets and liabilities impact other financial income and expenses. Interest-bearing financial assets and liabilities are defined as items included in the net financial position of the Volvo Group (see section Key ratios). Exchange rate differences on loans and other financial instruments in foreign currency, which are used to hedge net assets in foreign subsidiaries and associated companies, are offset against translation differences in equity of the respective companies.

» **Read more in Note 4** Goals and policies in financial risk management, about currency exposure and currency risk management.

The most important exchange rates used in the consolidated financial statements are shown in table 1:1.

Exchange rates		Average rate		Closing rate as of Dec 31	
Country	Currency	**2020**	2019	**2020**	2019
Australia	AUD	6.3380	6.5724	6.2646	6.5125
Brazil	BRL	1.8068	2.4007	1.5715	2.2979
Canada	CAD	6.8603	7.1308	6.3996	7.1283
China	CNY	1.3329	1.3691	1.2537	1.3333
Euro Zone	EUR	10.4867	10.5888	10.0375	10.4336
Great Britain	GBP	11.7981	12.0658	11.0873	12.2145
Japan	JPY	0.0862	0.0868	0.0792	0.0853
Norway	NOK	0.9786	1.0747	0.9546	1.0579
South Africa	ZAR	0.5614	0.6548	0.5590	0.6668
South Korea	KRW	0.0078	0.0081	0.0075	0.0081
United States	USD	9.2037	9.4604	8.1886	9.3171

1:1

New accounting policies 2020

As of January 1, 2020, the Volvo Group has changed the classification of certain costs related to commercial customer commitments. This has caused a shift between the lines in the income statement for Industrial Operations as well as the Volvo Group, while Financial Services is not affected. Restated income statements for 2019 are disclosed in note 31.

No other new or revised accounting standards or interpretations effective from January 1, 2020 have significantly affected the Volvo Group's financial statements.

New accounting policies 2021 and later

A number of accounting standards and interpretations have been published and is effective from 2021 and later.

Amendments to IFRS 7, IFRS 9 and IFRS 16

The amendments to IFRS 7, IFRS 9 and IFRS 16 relates to the interest rate benchmark reform - phase 2 and provides guidance on how to account for the effects of the reform. The interest rate benchmark reform refers to the transition from current interest reference rate such as LIBOR to new benchmark interest rates. The Volvo Group closely follows the transition which will take place during 2021. The amendments to IFRS 7, IFRS 9 and IFRS 16 will be applied when new interest rate benchmarks are incorporated in the underlying contracts which is expected to have taken place by the end of 2021. The amendment is effective from January 1, 2021.

Other new and revised accounting standards or interpretations are not considered to have a material impact on the Volvo Group's financial statements.

2 KEY SOURCES OF ESTIMATION UNCERTAINTY AND CRITICAL JUDGMENTS

The Volvo Group's most significant accounting policies are described in conjunction with the applicable note, read more in note 1 Accounting Policies for a specification. The preparation of AB Volvo's Consolidated Financial Statements requires the use of estimates and assumptions that may affect the recognized amounts of assets and liabilities at the date of the financial statements. In addition, the recognized amounts of net sales and expenses during the periods presented are affected. In preparing the financial statements, management has made its best judgments of certain amounts included in the financial statements, materiality taken into account. Actual results may differ from previously made estimates. In accordance with IAS 1, the company is required to disclose the assumptions and other major sources of estimation uncertainties that, if actual results differ, may have a material impact on the financial statements.

! The sources of estimation uncertainty and critical judgments identified by the Volvo Group and which are considered to fulfill these criteria are presented in connection to the items considered to be affected. The table 2:1 discloses where to find these descriptions.

Source of estimation uncertainty and critical judgments	Note	
Sales with residual value commitments and variable sales price	7,	Revenue
Deferred taxes and uncertainty over income tax treatments and claims	10,	Income taxes
Impairment of goodwill and other intangible assets	12,	Intangible assets
Impairment of tangible assets and residual value risks	13,	Tangible assets
Measurement of lease liabilities and right-of-use assets	14,	Leasing
Allowance for expected credit losses	15, 16,	Customer-financing receivables Receivables
Write down of inventories	17,	Inventories
Assumptions when calculating post-employment benefits	20,	Provisions for post-employment benefits
Provisions for product warranty and provisions for legal proceedings	21,	Other provisions

2:1

3 ACQUISITIONS AND DIVESTMENTS OF SHARES AND OPERATIONS

ACCOUNTING POLICY

Acquisitions and divestments

All acquisitions and divestments are recognized in accordance with the acquisition method. Volvo Group measures acquired identifiable assets, tangible and intangible, and liabilities at fair value. Any surplus amount from the purchase price, possible non-controlling interest and fair value of previously held equity interests at the acquisition date compared to the Volvo Group's share of acquired net assets is recognized as goodwill. Any deficit amount, known as gain from a bargain purchase, is recognized in the income statement.

For acquisitions done in stages, a business combination occurs only on the date control is achieved, which is also the time when goodwill is calculated. Transactions between the Volvo Group and owners with non-controlling interest are recognized in equity as long as control of the subsidiary is retained. For each business combination, the Volvo Group decides whether the non-controlling interest shall be valued at fair value or at the non-controlling interest's proportionate share of the net assets of the acquiree. All acquisition-related costs are expensed. Companies acquired during the year are consolidated as of the date of acquisition. Companies that have been divested are included in the consolidated financial statements up to and including the date of the divestment. Divestment of operations with the main purpose to dispose intangible and tangible assets is treated as disposal of intangible and tangible assets.

Assets and liabilities held for sale and discontinued operations

In a global group like the Volvo Group, processes are continuously ongoing regarding the sale of assets or groups of assets at minor values. When the criteria for being classified as an assets and liabilities held for sale are fulfilled and the asset or group of assets are of significant value, the asset or group of assets, both current and non-current, and the related liabilities are recognized on separate lines in the balance sheet. The asset or group of assets are measured at the lower of its carrying amount and fair value after deductions for selling expenses. The balance sheet items and the potential income effect resulting from the revaluation to fair value less selling expenses are, if related to Industrial Operations, normally recognized in the segment Group functions & Other, otherwise in the Financial Services segment. When the sale is completed the result is distributed to the relevant segments.

AB Volvo's holding of shares in subsidiaries as of December 31, 2020 is disclosed in note 13 Investments in shares and participations for the Parent Company. Significant acquisitions, formations and divestments for the Volvo Group are listed below.

Acquisitions during the period

The Volvo Group has not made any acquisitions during 2020 and 2019, which solely or jointly have had a significant impact on the Volvo Group's financial statements.

Divestments during the period

The Volvo Group has made divestments during 2020 which resulted in a net gain affecting operating income. The divestments include the sale of majority of Volvo Buses' business in India to the Volvo Group's joint venture VECV, and sale of Volvo Construction Equipment's Blaw-Knox paver range in North America. The Volvo Group has not made any other divestments during 2020 that have had a significant impact on the Volvo Group. During 2019 the Volvo Group made divestments which resulted in a net gain within operating income. The gain mainly pertained to the sale of the majority of the Volvo Group's holding of shares in WirelessCar.

The impact on the Volvo Group's balance sheet, income statement and cash flow statement in connection with the divestment of shares and operations are specified in the following table.

Divestments	2020	2019
Goodwill	–20	–22
Property, plant and equipment	–144	–1
Assets under operating lease	–	–1
Inventories	–293	–
Accounts receivables	–2	–133
Other receivables	–2	–248
Cash and cash equivalents	–3	–
Provisions	36	13
Trade payables	4	118
Other liabilities	13	146
Divested net assets	**–411**	**–128**
Cash and cash equivalents received	435	1,343
Net gain/loss on divestments affecting operating income	**25**	**1,634**
Effect on Volvo Group cash and cash equivalents	**435**	**1,343**
Effect on Volvo Group net financial position	**407**	**1,324**

3:1

Assets and liabilities held for sale

As of December 31, 2020, the Volvo Group recognized assets and liabilities held for sale amounting to SEK 34,296 M (32,773) and SEK 11,286 M (10,413) respectively. The amounts mainly relate to the intended divestment of UD Trucks business globally from the Volvo Group to Isuzu Motors. The delay in signing of the binding agreement to October 2020 has caused the period to complete the sale to be extended to more than 12 months from the initial reclassification. Based on the binding agreement the closing is expected during the first half of 2021. The transaction is subject to certain conditions, including approval from regulatory authorities. No translation differences on foreign operations were recognized in other comprehensive income related to the reclassified assets and liabilities held for sale.

Assets and liabilities held for sale in Industrial Operations have been reclassified within the segment Group Functions & Other. Assets and liabilities held for sale in Financial Services have been reclassified within the segment Financial Services.

Assets and liabilities held for sale	Dec 31, 2020	Dec 31, 2019
Intangible assets	3,592	3,096
Tangible assets	11,782	11,831
Financial assets	6,446	4,324
Inventories	5,755	5,510
Accounts receivable	4,196	4,742
Other current receivables	2,524	3,269
B/S **Total assets**	**34,296**	**32,773**
Provisions	1,910	1,340
Other non-current liabilities	1,642	910
Trade payables	4,796	4,774
Other current liabilities	2,938	3,388
B/S **Total liabilities**	**11,286**	**10,413**

3:2

Acquisitions and divestments after the end of the period

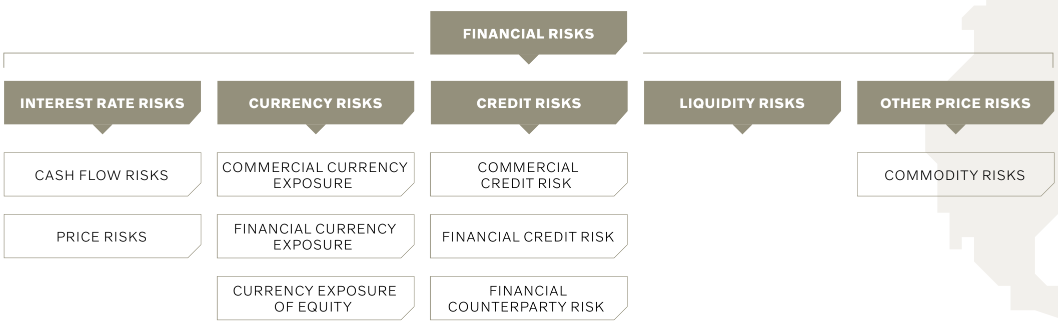
The Volvo Group has not made any acquisitions or divestments after the end of the period that have had a significant impact on the Volvo Group.

4 GOALS AND POLICIES IN FINANCIAL RISK MANAGEMENT

The Volvo Group's global operations expose the Group to financial risks in the form of interest rate risks, currency risks, credit risks, liquidity risks and other price risks. The board of AB Volvo has adopted a financial risk policy that regulates how these risks should be controlled and governed and defines roles and responsibilities within the Volvo Group. The financial risk policy also establishes principles for how financial activities shall be carried out, sets mandates and steering principles for the management of financial risks as well as defines the financial instruments to be used for mitigating these risks. The board of AB Volvo is regularly informed about the development of the Volvo Group's financial risks and other matters covered within the financial risk policy. The financial risk policy is reviewed on an annual basis. The Volvo Group manages financial risk as an integrated element of the business operations where parts of the responsibility for the finance operation and financial risk management are centralized to Volvo Group Treasury, the internal bank of the Volvo Group. The Volvo Group has managed to safeguard liquidity, perform financial activities and manage risk in accordance with the financial risk policy throughout the Covid-19 pandemic and the uncertainty in the financial markets. Information on the impact from the Covid-19 pandemic related to financial risks is included in the respective notes.

» **Read more in Note 30** Financial instruments about accounting policies for financial instruments.

» **Read more** in section Financial Management, page 64 and section Risks and uncertainties, page 68 about financial risk management.



INTEREST RATE RISKS

Interest rate risk refers to the risk that changed interest rates will affect the Volvo Group's net income and cash flow (cash flow risk) or the fair value of financial assets and liabilities (price risk).

POLICY

Matching the interest fixing terms of financial assets and liabilities reduces the exposure. Interest rate swaps are used to change/influence the interest fixing term for the Volvo Group's financial assets and liabilities. Currency interest rate swaps enable borrowing in foreign currencies from different markets without introducing currency risk. The Volvo Group may from time to time use other types of forward contracts (futures) and forward rate agreements (FRAs). Most of these contracts are used to hedge interest rate levels for current borrowing or investments.

Cash flow risks

The effect of changed interest rate levels on future currency and interest flows primarily pertains to Financial Services and Industrial Operations' net financial items. Financial Services measure the degree of matching interest rate fixing on borrowing and lending. The calculation of the matching degree excludes equity, which amounted to 8% in Financial Services. At year-end 2020, the degree of such matching ratio was 98% (99) in Financial Services which is in line with the Group policy.

In addition to the financial assets in Financial Services, the Volvo Group's interest-bearing assets consisted primarily of cash and cash equivalents. On December 31, 2020 the average interest on Industrial Operations financial assets was 0.2% (0.4). The Industrial Operations' results and profitability are closely aligned to the business cycle. Therefore, in order to minimize the interest rate risk, outstanding loans had interest terms corresponding to an interest rate fixing of between one to three months. The average interest on Industrial Operations financial liabilities at year end amounted to 2.7% (4.4), including the Volvo Group's credit costs. The decrease primarily relates to the effect from the repayment of the first tranche of the hybrid bond in June 2020.

Table 4:1 shows the impact on income after financial items in Industrial Operations' net financial position, excluding lease liabilities and pensions and similar obligations, if interest rates were to increase by 1 percentage point, assuming an average interest rate fixed term of three months on the liability side.[1] The impact on equity is earnings after tax.

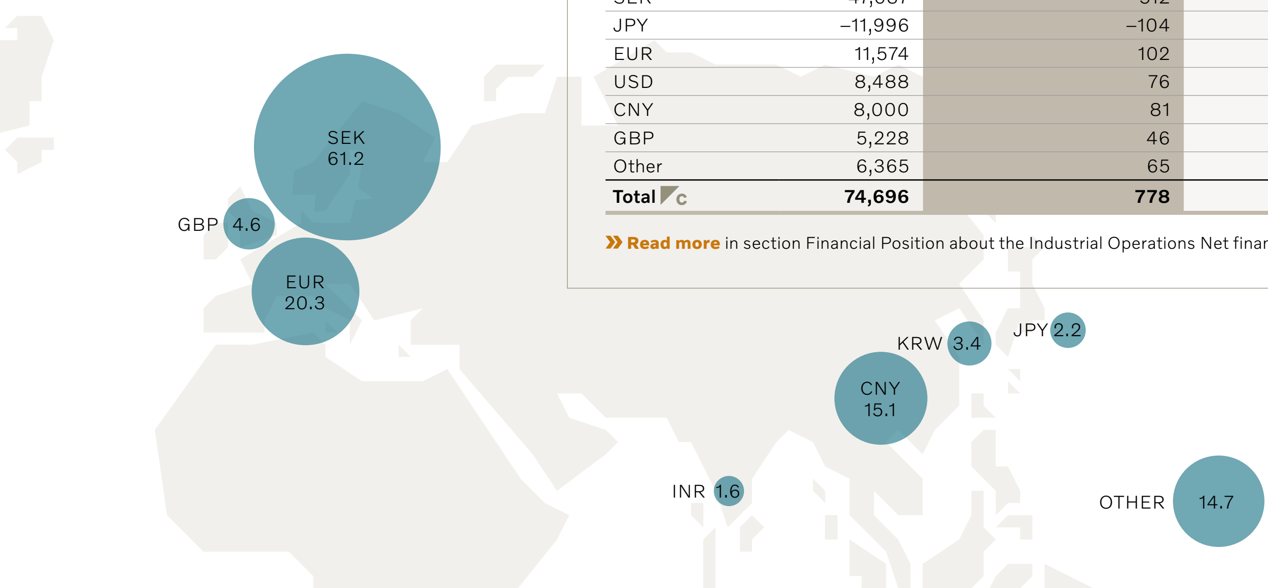
Price risks C

Exposure to price risk as a result of changed interest rate refers to financial assets and liabilities with a longer interest rate fixing term (fixed interest). This is not a risk for Industrial Operations since all outstanding loans are signed with a short interest rate fixing.

1 The sensitivity analysis on interest rate risk is based on simplified assumptions. It is not unlikely for market interest rates to change by one percentage point on an annual basis. However, in reality, these rates often rise or decline at different points in time. The sensitivity analysis also assumes a parallel deferment of the return curve, and that the interest on assets and liabilities will be equally impacted by changes in market interest rates. Accordingly, the impact of real interest rate changes may differ from the analysis presented in table 4:1.

» **Read more in Note 20** Provisions for post-employment benefits regarding sensitivity analysis on the defined benefit obligations when changes in the applied assumptions for discount rate and inflations are made.

The Volvo Group's net assets in different currencies (SEK bn) =



Risk net financial position Dec 31, 2020 SEK M	Net financial position excl. pensions and lease liabilities	Impact on income after financial items if interest rate rises 1% A (Interest rate risks)	Impact on net financial position if SEK appreciates against other currencies 10% B (Currency risks)
SEK	47,037	512	–
JPY	–11,996	–104	1,200
EUR	11,574	102	–1,157
USD	8,488	76	–849
CNY	8,000	81	–800
GBP	5,228	46	–523
Other	6,365	65	–636
Total C	**74,696**	**778**	**–2,766**

» **Read more** in section Financial Position about the Industrial Operations Net financial position.

4:1

For Financial Services, financial assets and liabilities are matched in order to limit risk. Volvo Group Treasury is allowed to take limited active currency and interest rate positions in relation to the Financial Services portfolio. This responsibility is subject to, and shall be within, applicable market risk limitations. There are several measurements which can be used to define market risk. Volvo Group Treasury is using Value-at-Risk (VaR) as the main tool for mandating market risk (including interest rate risk, currency risk and liquidity risk). Volvo Group Treasury measures VaR over a one day holding period, using a 97.7% confidence level and historical volatility and correlation. The total VaR mandate for Volvo Group Treasury is SEK 150 M, and the usage is measured daily. As of December 31, 2020, the VaR usage was SEK 13.1 M (11.6).

CURRENCY RISKS

CURRENCY RISKS B

The balance sheet may be affected by changes in different exchange rates. Currency risks in the Volvo Group's operations are related to changes in the value of contracted and expected future payment flows (commercial currency exposure), changes in the value of loans and investments (financial currency exposure) and changes in the value of assets and liabilities in foreign subsidiaries (currency exposure of equity).

POLICY

The aim of the Volvo Group's currency risk management is to secure cash flow from firm flows through currency hedges pursuant to the established Financial risk policy, and to minimize the exposure of financial items in the Volvo Group's balance sheet. Below is a presentation on how this work is conducted for commercial and financial currency exposure, and for currency exposure of equity.

Volvo Group's outstanding derivatives hedging commercial currency risks December 31, 2020

Millions	USD/BRL
Due date 2021	10
Total local currency	**10**
Average contract rate	5.54
Market value of outstanding derivatives, SEK M	**5**

4:2

Sensitivity analysis[1]

Risk currency exposure 2020 SEK bn	Transaction exposure from operating net flows	Impact on operating income if currency rate appreciates against all other currencies by 10% B (Currency risks)
SEK	–32	–3.2
KRW	–6	–0.6
EUR	2	0.2
GBP	6	0.6
USD	8	0.8

The deficit in transaction exposure in SEK is mainly generated from flows in USD, GBP, EUR, NOK and ZAR against SEK.

4:3

Commercial currency exposure

Transaction exposure from commercial flows

The Volvo Group conducts manufacturing in 18 countries around the globe and more than 95% of net sales are generated in countries other than Sweden. Transaction exposure from commercial flows in foreign currency is generated from internal purchases and sales between manufacturing entities and market companies and external sales and purchases in foreign currency around the globe. As the predominant parts of the operations in the Volvo Group are situated outside Sweden, the fluctuations in currency rates affecting the transaction flows in foreign currency are in many cases not against SEK. Industrial Operations' transaction exposure from commercial flows for key currencies is presented in graph 4:5. The graph represents the transaction exposure from commercial operating cash flows in foreign currency, expressed as net surpluses or deficits in key currencies. The deficit in SEK and KRW is mainly an effect of manufacturing costs in the plants in Sweden and South Korea, but limited external revenues in those currencies. The surplus in EUR on the other hand, is the net of significant volumes of sales and purchases made between many entities around the globe in EUR. The surplus in USD is mainly generated from external sales to entities in the USA and emerging markets around the globe. The surplus in GBP is generated from external sales to Great Britian.

The hedging of the Volvo Group's commercial currency exposure is executed centrally. The Volvo Group's consolidated currency portfolio exposure is the value of forecasted flows in foreign currency. The Volvo Group only hedge the part of the forecasted portfolio that is considered highly probable to occur, i.e. firm flows, where the main parts will be realized within six months. The Volvo Group uses forward contracts and currency options to hedge the portion of the value of forecasted future payment flows in foreign currency. The hedged amount of firm flows for all periods fall within the framework of the Volvo Group's financial risk policy. The Covid-19 pandemic has created an uncertainty regarding forecasted flows in foreign currency with the consequence that the hedge activity has decreased substantially. Table 4:2 shows outstanding derivatives for the hedging of commercial currency risks.

Translation exposure from the consolidation of operating income in foreign subsidiaries

In conjunction with the translation of operating income in foreign subsidiaries, the Volvo Group's income is impacted if currency rates change. The Volvo Group does not hedge this risk. Graph 4:7 shows the translation effect in key currencies when consolidating operating income for 2020 in foreign subsidiaries in the Volvo Group.

» **Read more** in section Currency exposure of equity.

Sensitivity analysis for transaction exposure[1]

The table 4:3 illustrates the impact on operating income if key currencies for Volvo Group appreciate by 10% against all other currencies. Hedge accounting is not applied on derivatives hedging cash flows in foreign currency. As a consequence, the impact on equity equals the impact on operating income before tax.

Volvo Group currency review

The table and graphs 4:4 to 4:8 illustrate the transaction exposure and currency impact on operating income from commercial net flows in foreign currency , translation effect when consolidating operating income in foreign subsidiaries and currency impact on sales in key currencies.

» **Read more** about Volvo Group transaction exposure in section Commercial currency exposure above.

Financial currency exposure

Loans and investments in the Volvo Group's subsidiaries are performed mainly in local currencies through Volvo Group Treasury, which minimizes individual companies' financial currency exposure. Volvo Group Treasury uses various derivatives to facilitate lending and borrowing in different currencies without increasing the risk for the Volvo Group. The net financial position of the Volvo Group is affected by currency fluctuations since financial assets and liabilities are distributed among the Volvo Group companies that conduct their operations using different currencies.

Table 4:1 discloses the impact on income after financial items on Industrial Operations net financial position, excluding pensions and similar net obligations, if SEK were to strengthen by 10%.

Currency exposure of equity

The carrying amount of assets and liabilities in foreign subsidiaries are affected by current exchange rates in conjunction with the translation of assets and liabilities to SEK. To minimize currency exposure of equity, the size of equity in foreign subsidiaries is continuously optimized with respect to commercial and legal conditions. Currency hedging of equity may occur in cases where a foreign subsidiary is considered overcapitalized. Net assets in foreign subsidiaries, associated companies and joint ventures amounted at year end 2020 to SEK 84 billion (90). The need to undertake currency hedging relating to investments in associated companies, joint ventures and other companies is assessed on a case-by-case basis.

On the map on the previous pages the Volvo Group's net assets in different currencies (SEK bn) are displayed.

» **Read more in Note 30** Financial instruments about Volvo Group's policy choice on hedge accounting.

1 The sensitivity analysis on currency rate risks is based on simplified assumptions. It is not unlikely for a currency to appreciate by 10% in relation to other currencies. In reality however, all currencies usually do not change in the same direction at any given time, so the actual effect of exchange rate changes may differ from the sensitivity analysis. Please refer to tables 4:1 4:3

The Volvo Group's currency review

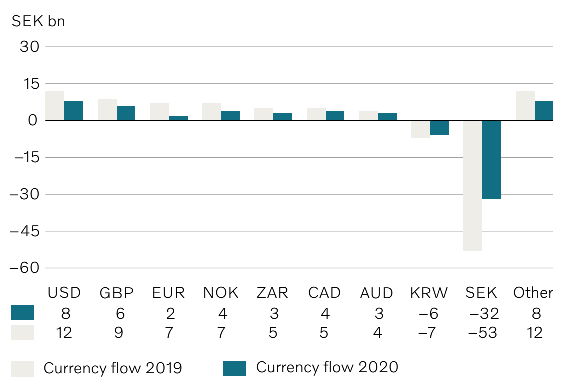
When the Volvo Group communicates the currency impact on operating income, the following factors are included:

Currency impact on operating income, Volvo Group, SEK billion	**2020**	2019	Change
Net flows in foreign currency			–1.5
Realized and unrealized gains and losses on hedging contracts	–0.0	–0.0	–0.0
Unrealized gains and losses on receivables and liabilities in foreign currency	0.2	–0.1	0.4
Translation effect on operating income in foreign subsidiaries			–2.0
Total currency impact on operating income Volvo Group			**–3.2**

Currency impact on net flows in foreign currency is detailed in graph 4:6 and translation effect on operating income in foreign subsidiaries is detailed in graph 4:7 in key currencies.

4:4

Transaction exposure from commercial net flows in 2020 and 2019

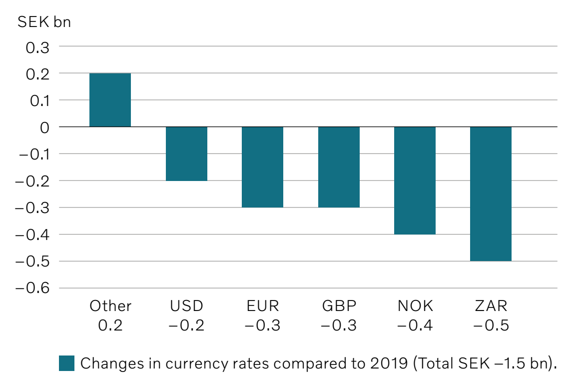


The graph above represents the transaction exposure from commercial operating net cash flows in foreign currency, expressed as net surpluses or deficits in key currencies.

» **Read more** in section Commercial currency exposure.

4:5

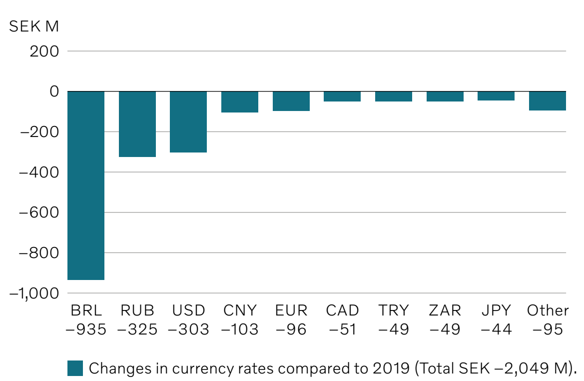
Currency impact on operating income from net flows in foreign currency 2020 versus 2019



Currency effect on operating income from net flows in foreign currency in Volvo Group is presented in the graph above.

4:6

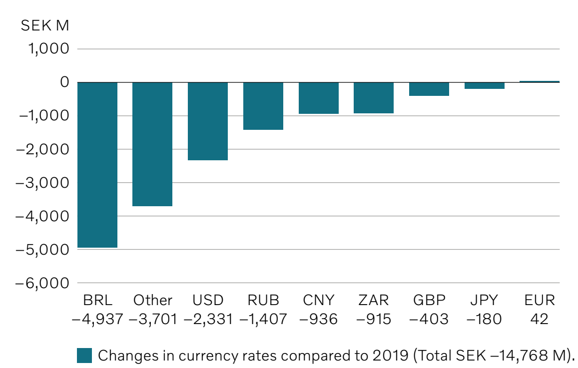
Translation effect on operating income in 2020 versus 2019



Translation effect when consolidating operating income in foreign subsidiaries for Volvo Group is presented in the graph above.

4:7

Currency impact on net sales in 2020 versus 2019



Currency effect on net sales from inflows in foreign currency and translation effect when consolidating net sales in foreign subsidiaries for Volvo Group is presented in the graph above.

4:8 »

CREDIT RISKS

CREDIT RISKS

Credit risk is defined as the risk that the Volvo Group does not receive payment for recognized accounts receivables and customer-financing receivables (commercial credit risk), that the Volvo Group's investments are unrealizable (financial credit risk) and that potential profit is not realized due to the counterparty not fulfilling its part of the contract when using derivative instruments (financial counterparty risk).

POLICY

The objective of the Volvo Group's credit risk management is to define, measure and monitor the credit exposure in order to minimize the risk of losses deriving from credit to customers and suppliers, financial credit risk, counterparty risk and customer finance activities within Financial Services.

Commercial credit risk

The Volvo Group's credit granting is steered by group policies and customer-classification rules. The credit portfolio should contain a distribution among different customer categories and industries. The credit risk is managed through active credit monitoring, follow-up routines and, where applicable, product repossession. Moreover, regular monitoring ensures that necessary allowances are made for expected credit losses on financial assets. Risk management practices and the impact on estimation uncertainty and critical judgement due to the Covid-19 pandemic for Financial Services are presented in note 15 Customer-financing receivables and for Industrial Operations in note 16 Receivables. Moreover, note 15 includes information on gross exposure for customer-financing receivables by past due status and in note 16 accounts receivables, a gross exposure for accounts receivables by past due status is presented in relation to allowance for expected credit losses.

The customer-financing receivables in the Volvo Group amounted to net SEK 129 billion (143) on December 31, 2020. The credit risk of this portfolio is distributed over a large number of retail customers and dealers. Collateral is provided in the form of the financed products. In the credit granting the Volvo Group strives for a balance between risk exposure and expected return.

The Volvo Group's accounts receivables as of December 31, 2020 amounted to net SEK 36 billion (38).

» **Read more in Note 15** Customer-financing receivables about Volvo Group's concentration of credit risk in Financial Services.

» **Read more in Note 16** Receivables.

Financial credit risk

The Volvo Group's financial assets are to a large extent managed by Volvo Group Treasury. All investments must meet the requirements of high liquidity and low credit risk. According to the Volvo Group's financial risk policy, this includes using counterparties for investments and derivative transactions with a credit rating better or equivalent to A– from one of the well-established credit rating institutions or similar.

Cash and cash equivalents including marketable securities as of December 31, 2020 amounted to SEK 85 billion (62) and consists primarily of bank account positions.

» **Read more in Note 18** Cash and cash equivalents.

Financial counterparty risk

The use of derivatives involves a counterparty risk, in that a potential loss may not be possible to offset (in full or in part) against a potential gain if the counterparty fails to fulfill its part of the contract. The Volvo Group is actively working with limits per counterpart in order to reduce the risk for high net amounts towards individual counterparts. To reduce the exposure further the Volvo Group enters into master netting agreements, so called ISDA agreements, with all counterparts eligible for derivative transactions. The netting agreements provide the possibility for assets and liabilities to be offset under certain circumstances, such as in the case of the counterpart's insolvency. A Credit Support Annex (CSA) often accompanies the ISDA agreement. The CSA stipulates the terms and conditions under which the two parties are required to make cash transfers to each other in order to further reduce the exposure from the net open positions. The netting agreements have no effect on the income statement or the financial position of the Volvo Group, since derivative transactions are accounted for on a gross basis. Table 4:9 shows the effect of netting agreements and cash transfers on the Volvo Group's gross exposure from outstanding interest and currency risk derivatives as of December 31, 2020.

» **Read more in Note 30** Financial instruments about the Volvo Group's gross exposure from positive derivatives per type of instrument.

The impact from netting agreements and cash transfers on the Volvo Group's gross exposure from derivatives as of Dec 31, 2020

SEK M	Gross amount	Netting agreements	Cash transfers	Net position	Change
Interest and currency risk derivatives reported as assets	6,050	–864	–4,428	758	87%
Interest and currency risk derivatives reported as liabilities	1,357	–864	0	492	64%

4:9

LIQUIDITY RISKS

LIQUIDITY RISKS

Liquidity risk is defined as the risk that the Volvo Group would be unable to finance or refinance its assets or fulfill its payment obligations.

POLICY

The Volvo Group ensures sound financial preparedness by always keeping a certain percentage of its sales in liquid assets, mainly as bank account positions in banks rated at least A– from one of the well-established credit rating institutions or similar. A sound balance between current and non-current debt maturities, as well as non-current committed credit facilities, is intended to secure liquidity preparedness, and thus the Volvo Group's payment capability.

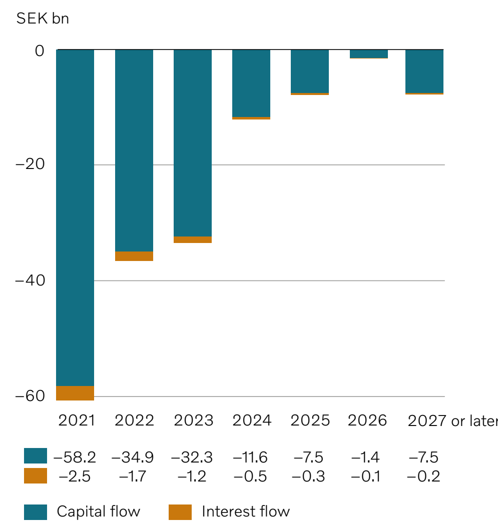
The Volvo Group's cash and cash equivalents amounted to SEK 85 billion (62) on December 31, 2020. In addition to this, granted but unutilized credit facilities amounted to SEK 42 billion (43). Graph 4:10 discloses expected future cash flows related to financial liabilities. Capital flow refers to expected payments of loans, lease liabilities and derivatives, see note 22 Liabilities. Expected interest flow refers to the future interest payments on loans, lease liabilities and derivatives based on interest rates anticipated by the market. The interest flow is recognized within cash flow from operating activities. The maturity structure of the unutilized credit facilities is disclosed in note 22, in table 22:3. The predominant part of expected future cash flows that will occur in 2021 and 2022 is an effect of the Volvo Group's normal business cycle, with shorter duration in the portfolio within Financial Services compared to Industrial Operations.

Financial Services measure the degree to which the duration of borrowing and lending matches. The calculation of the matching degree excludes equity, which amounted to 8% in Financial Services. At year-end 2020, the degree of such matching was 98% (99) for the segment Financial Services, which was in line with the Volvo Group's policy. Volvo Group Treasury has, for practical as well as business reasons, the mandate to mismatch their portfolio for Financial Services between a matching ratio of 80–120%. At year-end 2020, the matching ratio was 99% (95). Any gains or losses from the mismatch impact the segment Group functions & other within industrial Operations.

A hybrid bond amounting to EUR 1.5 billion was issued in the Volvo Group in 2014 in order to further strengthen the Volvo Group's balance sheet and prolong the maturity structure of the debt portfolio. The first tranche of this bond (EUR 0.9 billion) was repaid on June 10, 2020. The remaining tranche (EUR 0.6 billion) has a first call in 2023 and is classified as a loan with an original duration of 61.6 years, subordinated to all other financial liabilities currently outstanding.

» **Read more in Note 14** Leasing about the maturity for non-current lease liabilities in table 14:4.

Future cash flow including lease liabilities and derivatives related to non-current and current financial liabilities[1, 2]



4:10

1 In addition to derivatives included in graph 4:10 there are also derivatives in the Volvo Group related to financial liabilities with a positive fair value recognized as assets, which are expected to give a future capital flow of SEK 5.5 billion (1.3) and a future interest flow of SEK -0.1 billion (0.2).

2 The interest payments related to the hybrid bond are included with an amount of SEK 0.9 billion (1.6), which pertains to the period through the first call date for the remaining tranche, in 2023. The interest payments that follow in the event that the call option is not exercised have as yet not been established.

OTHER PRICE RISKS

OTHER PRICE RISKS

Commodity risks

Commodity risk refers to the risk that changed commodity prices will affect the consolidated earnings within the Volvo Group. Procurement of commodities such as steel, precious metals and electricity are made in the Volvo Group on a regular basis where prices are set in the global markets.

POLICY

Changes in commodity prices are included in the product cost calculation. Increased commodity prices are therefore reflected in the sales price of the Volvo Group's final products. Purchasing agreements with commodity suppliers may also be long-term in nature or structured in a way to decrease the volatility in commodity prices.

5 INVESTMENTS IN JOINT VENTURES, ASSOCIATED COMPANIES AND OTHER SHARES AND PARTICIPATIONS

ACCOUNTING POLICY

Subsidiaries

The Volvo Group has production facilities in 18 countries and sales of products in more than 190 markets, which means that the Volvo Group has subsidiaries in many parts of the world. A subsidiary is defined as an entity controlled by the Volvo Group. A subsidiary is controlled when the parent company has power over the investee, exposes over or hold rights to variable returns from its involvement with the investee and holds the ability to use its power over the investee to affect the amount of the investor's return. Most of the Volvo Group's subsidiaries are 100% owned and are therefore considered to be controlled by the Volvo Group. For some subsidiaries there are restrictions on the Volvo Group's ability to access or use cash or cash equivalents from these subsidiaries.

» **Read more in Note 11** Non-controlling interest.

» **Read more in Note 13** Investments in shares and participations in the parent company about the composition of the Volvo Group.

» **Read more in Note 18** Cash and cash equivalents.

Joint ventures

Joint ventures are companies over which the Volvo Group has controlling influence together with one or more external parties. Joint ventures are recognized by applying equity method accounting. The Volvo Group has holdings in a few joint ventures with VE Commercial Vehicles, Ltd., (VECV) being the significant holding. The investment in VECV is of a business-related nature and aims at strengthening the Volvo Group's position in India. VECV is included in the Trucks segment. During 2020, the Volvo Group, as part of Volvo Buses Transformation Program, divested Volvo Buses business in India to VECV. The Bus business has been integrated into VECV.

Associated companies

Associated companies are companies in which the Volvo Group has a significant influence. A strong indication of such influence is when the Group's holding is at least 20% but less than 50% of the voting rights. Holdings in associated companies are recognized in accordance with the equity method accounting. The ownership in the Chinese automotive manufacturer Dongfeng Commercial Vehicles Co., Ltd (DFCV) is classified as an associated company and is included in the Trucks segment.

Equity method

The Volvo Group's share of the companies' income/loss recognized according to the equity method is included in the Volvo Group's income statement as income/loss from investments in joint ventures and associated companies. Where appropriate, the income has been reduced by depreciation of surplus values and the effect of applying different accounting policies has been taken into account. Income from companies recognized in accordance with the equity method is included in operating income since the Volvo Group's investments are business related in nature. For practical reasons, some of the associated companies are included in the consolidated financial statements with a certain time lag, normally up to one quarter. Dividends from joint ventures and associated companies are not included in the consolidated income. The carrying amount of investments in joint ventures and associated companies are affected by the Volvo Group's share of the company's net income, less depreciation of surplus values and dividends received. Investments in joint ventures and associated companies are also affected by the Volvo Group's share of the company's other comprehensive income and by the translation difference from translating the company's equity in the consolidation of the Volvo Group. When applying the equity method and associates or joint ventures recognize losses, additional impairment losses might be recognized given any indication of impairment. For instance, a significant or prolonged decline in the fair value of the shares is an indication of impairment. However, investments accounted for in accordance with the equity method cannot amount to a negative carrying value and losses are therefore not adjusted for if the holding is of a negative amount. Additional losses are provided for to the extent that the Volvo Group has incurred legal or constructive obligations to make payments on behalf of the joint venture or the associated company.

Other shares and participations

Other shares and participations recognizes holding of shares in which the Volvo Group does not hold a significant influence. This generally means that the Volvo Group's holding of shares corresponds to less than 20% of the voting rights. Listed shares are recognized at fair value through other comprehensive income since the shares are not held for trading. For unlisted shares and participations, a fair value cannot be reasonably measured, hence these are measured at amortized cost. Earned or paid interest attributable to these assets is recognized in the income statement as part of net financial items, in accordance with the effective interest method. Dividends received attributable to these assets are recognized as income from other investments within operating income.

» **Read more in Note 30** Financial instruments, regarding classification and valuation of financial instruments.

Joint ventures

The Volvo Group's investments in joint ventures are listed below.

Investments in joint ventures	Dec 31, 2020 Percentage holding	Dec 31, 2020 Carrying value	Dec 31, 2019 Percentage holding	Dec 31, 2019 Carrying value
VE Commercial Vehicles, Ltd., (VECV)[1]	45.6	2,359	45.6	2,854
Other holdings in joint ventures[2]		108		1
Investments in joint ventures		**2,467**		**2,855**

5:1

1 VE Commercial Vehicles, Ltd., is considered to be a joint venture as the Volvo Group and Eicher Motors Ltd. have signed an agreement which states that common agreement is needed for important matters related to the governance of VECV.

2 Other holdings in joint ventures include investments in SOPROVI Algérie SPA, PT UD Astra Motor and World of Volvo AB. Part of other holdings in joint ventures have been reclassified to assets held for sale. » **Read more in Note 3** Acquisitions and divestments of shares and operations.

The following tables present summarized financial information for the Volvo Group's joint ventures:

Summarized income statements	**2020**			2019		
	VECV	Other joint ventures	Total	VECV	Other joint ventures	Total
Net sales	8,847	304	9,151	12,853	232	13,084
Operating income[1]	–219	–40	–259	381	–6	375
Interest income and similar credits	53	1	54	96	1	97
Interest expense and similar charges	–43	0	–43	–35	0	–35
Other financial income and expenses	–1	–	–1	–2	–	–2
Income taxes	83	8	91	–152	1	–151
Income for the period[2]	**–128**	**–31**	**–159**	**287**	**–3**	**284**
Other comprehensive income[3]	**–1**	**–5**	**–6**	**–5**	**–**	**–5**
Total comprehensive income	**–129**	**–36**	**–165**	**282**	**–3**	**280**

5:2

1 Depreciation and amortization of SEK 500 M (503) are included within operating income.

2 Income for the period in joint ventures includes depreciation of surplus values.

3 Including the Volvo Group's share of OCI related to joint ventures. Translation differences from translating joint ventures' equity in the Volvo Group are excluded.

Summarized balance sheets	**Dec 31, 2020**			Dec 31, 2019		
	VECV	Other joint ventures	Total	VECV	Other joint ventures	Total
Non-current assets	5,368	90	5,457	6,421	13	6,434
Marketable securities, cash and cash equivalents	1,813	63	1,876	1,249	16	1,266
Other current assets	4,150	216	4,366	4,541	152	4,693
Total assets	**11,331**	**368**	**11,699**	**12,211**	**181**	**12,393**
Equity[1]	5,173	286	5,459	6,259	77	6,337
Non-current financial liabilities	667	–	667	91	–	91
Other non-current liabilities	240	2	242	354	–	354
Current financial liabilities	3,426	21	3,447	3,475	75	3,550
Other current liabilities	1,826	59	1,885	2,032	29	2,061
Total equity and liabilities	**11,331**	**368**	**11,699**	**12,211**	**181**	**12,393**

5:3

1 Including the translation differences from translating joint ventures' equity in the Volvo Group.

Net financial position for the joint ventures (excluding post-employment benefits) amounted to SEK 1,624 M (974) as of December 31, 2020.
As of December 31, 2020, the Volvo Group's share of contingent liabilities in its joint ventures amounted to SEK 93 M (110). During 2020 no dividend from VECV was received (78).

Associated companies

The Volvo Group's investments in associated companies are listed below.

Investments in associated companies	Dec 31, 2020 Percentage holding	Dec 31, 2020 Carrying value	Dec 31, 2019 Percentage holding	Dec 31, 2019 Carrying value
Dongfeng Commercial Vehicles Co., Ltd (DFCV)	45.0	9,574	45.0	9,349
Other holdings in associated companies[1]		1,118		751
Investments in associated companies		**10,693**		**10,100**

5:4

1 Other holdings in associated companies include the investment in two dealers in Japan, Blue Chip Jet II HB and WirelessCar Sweden AB. Part of other holdings in associated companies have been reclassified to assets held for sale. **Read more in Note 3** Acquisitions and divestments of shares and operations.

The following tables present summarized financial information for the Volvo Group's associated companies:

Summarized income statements	2020			2019		
	DFCV	Other associated companies	Total	DFCV	Other associated companies	Total
Net sales	68,546	4,730	73,276	61,210	3,431	64,641
Operating income	3,492	17	3,509	3,272	53	3,325
Income for the period[1]	**3,679**	**–32**	**3,647**	**3,038**	**38**	**3,076**
Other comprehensive income[2]	**2**	**–**	**2**	**2**	**–**	**2**
Total comprehensive income	**3,681**	**–32**	**3,649**	**3,040**	**38**	**3,078**

5:5

1 Income for the period in associated companies includes depreciation/amortization of surplus values and internal transactions.

2 Including the Volvo Group's share of other comprehensive income related to associated companies. Translation differences from translating the associated companies' equity in the Volvo Group are excluded.

Summarized balance sheets	Dec 31, 2020			Dec 31, 2019		
	DFCV	Other associated companies	Total	DFCV	Other associated companies	Total
Non-current assets	19,590	1,605	21,195	20,681	1,159	21,841
Current assets	55,160	2,181	57,341	49,349	2,195	51,544
Total assets	**74,750**	**3,786**	**78,537**	**70,030**	**3,355**	**73,385**
Equity	20,303	1,770	22,073	20,039	1,368	21,407
Non-current liabilities	4,544	432	4,976	4,986	331	5,317
Current liabilities	49,904	1,584	51,488	45,005	1,656	46,660
Total equity and liabilities	**74,750**	**3,786**	**78,537**	**70,030**	**3,355**	**73,385**

5:6

Dividend received during 2020 from DFCV amounted to SEK 1,058 M (392).

Income/loss from investments in joint ventures and associated companies	**2020**	2019
Income/loss joint ventures		
VECV	–55	135
Other companies	–15	–2
Subtotal	**–70**	**133**
Income/loss associated companies		
DFCV[1]	1,776	1,692
Other companies	45	35
Subtotal	**1,821**	**1,727**
Revaluation, write-down and gain on divestment of shares associated companies		
Other companies	–2	–
Subtotal	**–2**	**–**
I/S **Income/loss from investments in joint ventures and associated companies[2]**	**1,749**	**1,860**

5:7

1 Income/loss includes an internal profit elimination of net SEK 39 M (26) and an adjustment to Volvo Group Accounting policies of SEK 130 M (334).

2 Income/loss from investments in associated companies includes depreciation of surplus values of SEK 39 M (39).

Other shares and participations

The carrying amount of the Volvo Group's holding of shares and participations in other companies as of December 31, 2020, is disclosed in the table below.

» **Read more in Note 30** Financial Instruments, regarding classification and valuation of financial instruments.

Holding of shares in listed and non-listed companies	**Dec 31, 2020 Carrying value**	Dec 31, 2019 Carrying value
Holdings in Japanese companies	0	0
Holdings in other listed companies[1]	0	0
Holdings in non-listed companies	276	158
B/S **Other shares and participations[2]**	**276**	**158**

5:8

1 Changes in fair value is measured through other comprehensive income and amounts to SEK –8 M (48).

2 Part of holdings in Other shares and participations have been reclassified to assets held for sale. » **Read more in Note 3** Acquisitions and divestment of shares and operations.

6 SEGMENT REPORTING

ACCOUNTING POLICY

Operating segments are reported in a manner consistent with the internal reporting provided to the chief operating decision-maker. The chief operating decision-maker, who is responsible for allocating resources and assessing financial performance of the operating segments, has been identified as the Group Executive Board that makes strategic decisions.

The Volvo Group comprises ten business areas: Volvo Trucks, Mack Trucks, Renault Trucks, UD Trucks and JV's, Volvo Autonomous Solution, Volvo Construction Equipment, Volvo Buses, Volvo Penta, Arquus and Volvo Financial Services.

Each business area, except for the truck brands, Arquus, Volvo Autonomous Solution, is seen as a separate segment. Arquus is part of the segment Group functions & Other. On January 1, 2020 Volvo Autonomous Solution was created and the financial results are reported in the Trucks segment. The truck brands are seen as one segment since the operations are highly integrated, strategic allocation of resources are done to the total segment and the independence for each truck brand are lower compared to other segments. As from February 2021 a new business area, Volvo Energy, has been created and the financial result will be reported as part of the Trucks segment.

The Volvo Group has shared operations in both the Trucks segment and in the segment Group functions & Other. Shared operations for production, development and logistics for powertrain and parts are included in the Trucks segment. Volvo Group IT and Volvo Group Real Estate are seen as business support functions and are part of Group functions & Other. The cost of these operations is shared between the different business areas based on utilization according to principles set by the Volvo Group.

2020	Trucks	Construction Equipment	Buses	Volvo Penta	Group functions & Other incl. elim.	Industrial Operations	Financial Services	Eliminations	Volvo Group
Net sales, external customers	206,198	81,230	18,955	11,400	6,983	324,766	13,679	–	338,446
Net sales, internal	2,064	223	836	491	–1,908	1,706	281	–1,987	0
I/S **Net sales**	**208,262**	**81,453**	**19,791**	**11,891**	**5,074**	**326,472**	**13,960**	**–1,987**	**338,446**
Expenses	–194,236	–71,870	–20,320	–10,493	–5,384	–302,303	–12,396	1,989	–312,710
I/S Income from investments in joint ventures and associated companies	1,738	–	6	4	1	1,749	–	–	1,749
I/S **Operating income**	**15,764**	**9,583**	**–522**	**1,402**	**–308**	**25,919**	**1,564**	**2**	**27,484**
I/S Interest income and similar credits						372	–	–73	299
I/S Interest expense and similar charges						–1,422	0	73	–1,349
I/S Other financial income and expense						–518	–	–	–518
I/S **Income after financial items**						**24,351**	**1,564**	**2**	**25,917**
Other segment information									
Depreciation, amortization and impairment	–15,117	–2,304	–801	–580	2,874	–15,928	–4,671	–	–20,599
Restructuring costs	–1,649	–574	–140	–223	–72	–2,659	–44	–	–2,703
Gains/losses from divestments	43	8	–31	–	4	25	–	–	25
Investments in in-/tangible assets	7,848	1,104	431	583	334	10,300	8,632	–	18,933
B/S Investments in joint ventures and associated companies	12,280	0	77	38	765	13,160	–	–	13,160
B/S Assets held for sale[1]					29,362	29,362	4,934	–	34,296
B/S Liabilities held for sale[1]					–6,638	–6,638	–4,649	–	–11,286

6:1

2019	Trucks	Con-struction Equipment	Buses	Volvo Penta	Group functions & Other incl. elim.	Industrial Operations	Financial Services	Elimina-tions	Volvo Group
Net sales, external customers	275,178	88,400	30,083	12,732	11,005	417,398	14,590	–	431,987
Net sales, internal	1,469	205	936	555	–2,202	964	281	–1,252	–7
I/S **Net sales**	**276,647**	**88,606**	**31,019**	**13,287**	**8,803**	**418,361**	**14,870**	**–1,252**	**431,980**
Expenses	–246,937	–76,695	–29,690	–11,415	–8,713	–373,450	–12,104	1,245	–384,308
I/S Income from investments in joint ventures and associ-ated companies	1,841	–	8	4	6	1,859	–	–	1,859
I/S **Operating income**	**31,552**	**11,910**	**1,337**	**1,876**	**96**	**46,771**	**2,766**	**–6**	**49,531**
I/S Interest income and similar credits						320	–	0	320
I/S Interest expense and similar charges						–1,673	0	0	–1,674
I/S Other financial income and expense						–1,346	–	–	–1,345
I/S **Income after financial items**						**44,071**	**2,767**	**–6**	**46,832**
Other segment information									
Depreciation, amortization and impairment	–13,905	–2,213	–752	–427	1,500	–15,797	–4, 788	–	–20,585
Restructuring costs	–176	1	–28	–	–1	–204	–	–	–204
Gains/losses from divestments	–	–	–5	–	1,639	1,634	–	–	1,634
Investments in in-/tangible assets	10,574	1,317	434	538	1,061	13,924	10,008	–	23,932
B/S Investments in joint ventures and associated companies	12,549	–	75	35	297	12,955	–	–	12,955
B/S Assets held for sale[1]					28,427	28,427	4,345	–	32,773
B/S Liabilities held for sale[1]					-5,927	–5,927	–4,486	–	–10,413

6:2

1 Reclassifications of assets and liabilities have been made to assets and liabilities held for sale.
Read more in Note 3 Acquisitions and divestments of shares and operations about assets and liabilities held for sale.

Reporting by market	Net sales		Non-current assets[2]	
	2020	2019	**2020**	2019
Europe	134,708	163,748	71,509	77,047
of which Sweden	*10,283*	*10,208*	*26,063*	*25,315*
of which France	*28,349*	*33,955*	*10,910*	*11,661*
of which the UK	*13,915*	*18,729*	*7,692*	*9,509*
North America	81,372	131,310	17,972	21,151
of which USA	*65,872*	*103,166*	*16,342*	*19,231*
South America	21,499	31,222	1,939	2,991
of which Brazil	*13,934*	*20,427*	*1,464*	*2,460*
Asia	81,111	79,951	5,451	5,990
of which China	*36,294*	*29,535*	*2,118*	*2,259*
of which Japan	*19,636*	*20,905*	*236*[1]	*174*[1]
Other markets	19,755	25,750	2,553	3,331
I/S B/S **Total**	**338,446**	**431,980**	**99,424**	**110,510**

6:3

1 Reclassifications of assets and liabilities have been made to assets and liabilities held for sale. **Read more in Note 3** Acquisitions and divestments of shares and operations about assets held for sale.

2 Non-current assets include tangible and intangible assets excluding goodwill.

The reporting of net sales by market is based on where the delivery of the goods or services took place.

7 REVENUE

ACCOUNTING POLICY

The recognized net sales in Industrial Operations pertain to revenues from sales of vehicles and services. Revenue from vehicles and services are recognized when control has been transferred from Volvo Group to the customer. Control refers to the customers' ability to use vehicles or services in its operations and to obtain the associated cash flow related to the use. Vehicles and services are sold separately or as a combined offer. In combined offers where the vehicle and services are separable from each other and the customer can benefit from the vehicle and the service independently, the transaction price is allocated between vehicles and services based on stand-alone selling price according to price lists.

The recognized net sales in Financial Services pertain to interest income related to finance leases and installment credits as well as income from operating lease contracts. Interest income are recognized during the underlying contract period and income from operating leasing is recognized over the leasing period.

Vehicles

Vehicles include sales of new vehicles, machines and engines as well as sales of used vehicles, machines, trailers, superstructures and special vehicles. A standard contractual warranty is included as part of the sales, read more in note 21 Other provisions about product warranty. The customer can pay for the vehicle at the point of sale or defer the payment by entering into agreements such as installment credits and finance lease.

Revenue is recognized when the control of the vehicle has been transferred to the customer, normally at one point in time which is when the vehicle has been delivered to the customer. The value of rebates, returns and variable sales price have been considered as part of the revenue recognition.

If the sale of the vehicle is combined with a residual value commitment (buybacks and tradebacks) the criterion of transferring control is based on if the customer has a significant economic incentive to exercise the option to return the vehicle or not. A significant economic incentive exists if the repurchase price is higher than the assessed fair market value i.e. net realizable value at the end of the residual value commitment period, or if the historical returns indicate that it is probable that the customer will return the vehicle at the end of the commitment period. Thus, the control has not been transferred and the sales transaction is recognized as an operating lease transaction. The revenue and expense are recognized over the residual value commitment period in the income statement. Assets under operating leases, a residual value liability, and a deferred lease income are recognized in the balance sheet. The asset is depreciated over the commitment period and the deferred lease income is recognized as revenue over the same period. The residual value liability amount remains unchanged until the end of the commitment period. If the vehicle is returned at the end of the commitment period, the residual value liability is paid to the customer and the vehicle is reclassified from assets under operating lease to inventory.

» **Read more in Note 14** Leasing about lease income on assets under operating lease.

If the customer is not considered to have a significant economic incentive to return the vehicle, the sales transaction is recognized in accordance with the right of return model. Revenue corresponding to the sales amount less the buyback amount is recognized at the initial sale, as well as a proportionate share of cost of goods sold. The remaining revenue is recognized as a refund liability and the remaining cost of goods sold as a right of return asset during the commitment period. If the vehicle is not returned the refund liability is recognized as revenue and the right of return asset is recognized as cost of goods sold at the end of the commitment period.

Services

Services include sale of spare parts, maintenance services, repairs, extended coverage and other aftermarket products. The control of the service has been transferred to the customer when the Volvo Group incurs the associated cost to deliver the service and the customer can benefit from the use of the delivered services. For spare parts, revenue is normally recognized at one point time, which is when it is delivered to the customer. For maintenance services and other aftermarket products, revenue is recognized over time, i.e. normally during the contract period. When payment for maintenance contracts is received in advance, the payment is recognized as a contract liability.

Services also includes sales in Financial Services related to finance lease, installment credits and operating leases. During 2020, revenue from Financial Services operations amounted to SEK 13,960 M (14,870).

» **Read more in Note 6** Segment reporting regarding net sales by segment and market.

» **Read more in Note 14** Leasing about lease income on assets under operating lease and finance income om customer-financing receivables.

SOURCE OF ESTIMATION UNCERTAINTY AND CRITICAL JUDGMENTS

Sales with residual value commitments

When the Volvo Group enters into sales transactions of vehicles with residual value commitments (buybacks and tradebacks) the judgment whether control has been transferred from Volvo Group to the customer and at what point in time revenue shall be recognized is critical. The judgment made is when a significant economic incentive exists or not for the customer to return the vehicle at the end of the commitment period. The assessment of significant economic incentive is performed at the inception of the contract and the outcome at the end of the commitment period can differ from the initial assessment. Factors that are considered and requires judgment is the assessed fair market value i.e. net realizable value at the end of the residual value commitment period and historical returns. The uncertainty due to Covid-19 and the macroeconomic development makes the judgment of the assessed fair market value even more difficult.

» **Read more in Note 13** Tangible assets for a description of residual value risks and the assessment of fair market value.

Variable sales price

In some sales transactions, the sales price is variable such as residual value guarantees. In assessing the variable sales price, the expected value method is used and revenue is recognized when it is highly probable that a reversal will not occur. Both the expected value method and the assessment of highly probable requires judgments to be able to make estimates. The estimates are made at the contract start with continuous assessment at each reporting period.

Disaggregation of revenue 2020	Trucks	Construction Equipment	Buses	Volvo Penta	Group functions & Other incl. elim	Industrial Operations	Financial Services	Elimina-tions	Volvo Group
Net sales per product group									
Vehicles	149,902	70,146	16,072	8,365	2,912	247,397	–	–1,946	245,451
Services	58,360	11,306	3,720	3,526	2,163	79,075	13,960	–41	92,995
Net sales	**208,262**	**81,453**	**19,791**	**11,891**	**5,074**	**326,472**	**13,960**	**–1,987**	**338,446**
Net sales per geographical region									
Europe	92,127	23,191	5,765	6,064	3,309	130,457	6,116	–1,865	134,708
North America	52,038	13,020	8,302	2,562	580	76,501	4,907	–36	81,372
South America	15,830	2,245	1,793	345	–79	20,133	1,380	–14	21,499
Asia	35,441	39,095	2,397	2,228	927	80,088	1,022	1	81,111
Africa and Oceania	12,826	3,902	1,535	691	338	19,293	535	–73	19,755
Net sales	**208,262**	**81,453**	**19,791**	**11,891**	**5,074**	**326,472**	**13,960**	**–1,987**	**338,446**
Timing of revenue recognition									
Revenue of vehicles and services recognized at the point of delivery	189,798	79,605	19,214	11,891	2,378	302,887	–	–484	302,403
Revenue of vehicles and services recognized over contract period	18,464	1,848	577	0	2,696	23,585	13,960	–1,503	36,043
Net sales	**208,262**	**81,453**	**19,791**	**11,891**	**5,074**	**326,472**	**13,960**	**–1,987**	**338,446**

7:1

Disaggregation of revenue 2019	Trucks	Construction Equipment	Buses	Volvo Penta	Group functions & Other incl. elim	Industrial Operations	Financial Services	Elimina-tions	Volvo Group
Net sales per product group									
Vehicles	213,071	76,506	25,600	9,698	7,682	332,558	–	–1,170	331,388
Services	63,575	12,099	5,419	3,588	1,122	85,804	14,870	–81	100,593
Net sales	**276,647**	**88,606**	**31,019**	**13,287**	**8,803**	**418,361**	**14,870**	**–1,252**	**431,980**
Net sales per geographical region									
Europe	112,125	30,300	7,369	6,671	2,521	158,985	6,279	–1,516	163,748
North America	85,731	17,404	15,543	3,180	3,996	125,855	5,534	–78	131,310
South America	23,753	2,532	3,281	319	–147	29,739	1,555	–72	31,221
Asia	37,610	33,932	2,617	2,439	2,315	78,914	1,010	26	79,951
Africa and Oceania	17,427	4,437	2,209	679	117	24,869	492	389	25,750
Net sales	**276,647**	**88,606**	**31,019**	**13,287**	**8,803**	**418,361**	**14,870**	**–1,252**	**431,980**
Timing of revenue recognition									
Revenue of vehicles and services recognized at the point of delivery	256,923	86,819	30,355	13,287	6,749	394,132	–	95	394,228
Revenue of vehicles and services recognized over contract period	19,725	1,786	664	0	2,054	24,230	14,870	–1,347	37,752
Net sales	**276,647**	**88,606**	**31,019**	**13,287**	**8,803**	**418,361**	**14,870**	**–1,252**	**431,980**

7:2

Contract and right of return assets	Dec 31, 2020	Of which due within 12 months	Of which due after 12 months	Dec 31, 2019	Dec 31, 2018
Contract assets	5,945	3,555	2,390	6,423	3,748
Right of return assets	1,152	191	961	1,280	1,655
Parts return assets	138	99	39	165	48
Total	**7,235**	**3,845**	**3,390**	**7,868**	**5,451**

7:3

Contract assets are recognized within other receivables and include revenue that has been recognized but not yet invoiced for work performed.

Right of return assets and parts return assets represents the product cost for the assets that might be returned to the Volvo Group.

Contract and refund liabilities	Dec 31, 2020	Of which due within 12 months	Of which due after 12 months	Dec 31, 2019	Dec 31, 2018
Contract liabilities					
Deferred service revenue	15,826	3,558	12,268	16,419	14,270
Advances from customers	8,010	6,427	1,583	7,707	6,526
Other deferred income	1,570	1,266	304	1,427	1,083
Accrued expenses for dealer bonuses and rebates	5,255	5,247	8	6,659	6,223
Refund liabilities	1,543	501	1,042	1,726	1,912
Total	**32,204**	**16,999**	**15,205**	**33,938**	**30,014**

7:4

Contract liabilities are recognized within other liabilities and include advance payments received from customers, e.g. advance payments for service contracts and extended coverage, for which revenue is recognized when the service is provided. Refund liabilities related to the right to return products and residual value guarantees are included with an amount that is expected to be paid to the customer if the vehicle or spare part is returned. In service contracts, the revenue expected to be recognized over the remaining term of the contract for services not yet delivered amounted to SEK 18,715M (14,207) as of December 31, 2020. Approximately 35% are expected to be recognized as revenue during 2021 and the remaining 65% as revenue during 2022–2024. The change in contract and refund liabilities are mainly due to decreased cost for dealer bonuses and rebates. During 2020, revenue has been recognized with SEK 14,396 M (9,480) that was included in the contract liabilities at the beginning of the period.

8 OTHER OPERATING INCOME AND EXPENSES

Other operating income and expense	2020	2019
Gains/losses on divestment of Group companies[1]	25	1,634
Change in allowances and write-offs for doubtful customer-financing receivables[2]	–1,892	–729
Change in allowances and write-offs for other doubtful receivables[3]	176	–204
Damages and litigations[4]	–715	–673
Restructuring costs[5]	–2,703	–204
Volvo profit sharing program	–138	–728
Other income and expenses[6]	–212	683
I/S **Total**	**–5,459**	**–221**

8:1

1 In 2019 a capital gain from the sale of the majority of Volvo Group's holding of shares in WirelessCar of SEK 1,621 M was included.
» **Read more in Note 3** Acquisitions and divestments of shares and operations, about gains/losses on divestment of Group companies.

2 » **Read more in Note 15** Customer-financing receivables.

3 » **Read more in Note 16** Receivables.

4 Including costs for legal advisors for claims related to the EU antitrust investigation (2016).

5 Including costs of SEK 2,210 M related to headcount reductions.

6 In 2019 capital gains from sale of real estate of SEK 707 M were included.

» **Read more in Note 4** Goals and policies in financial risk management regarding the Volvo Group's management of credit risk and credit reserves.

9 OTHER FINANCIAL INCOME AND EXPENSES

ACCOUNTING POLICY

In Other financial income and expenses unrealized revaluation on derivatives used to hedge interest rate exposure as well as realized result and unrealized revaluation on derivatives used to hedge future cash flow exposure in foreign currency are recognized. The derivatives are recognized at fair value through the income statement and no hedge accounting is applied. The unrealized revaluation on derivatives used to hedge interest rate exposure was mainly related to the debt portfolio within Industrial Operations and customer-financing portfolio within Financial Services.

» **Read more in Note 1** Accounting policies about receivables and liabilities in foreign currency.

» **Read more in Note 30** Financial Instruments regarding the accounting policy for financial assets at fair value through the income statement.

Other financial income and expenses	**2020**	2019
Unrealized revaluation of derivatives used to hedge interest rate exposure	–379	–439
Realized result and unrealized revaluation on derivatives used to hedge future cash flow exposure in foreign currency	–22	–452
Financial instruments at fair value through income statement	**–401**	**–892**
Exchange rate gains and losses on financial assets and liabilities	–205	–86
Financial income and expenses related to taxes	334	–103
Costs for Treasury function, credit facilities, etc.	–245	–265
I/S **Total**[1]	**–518**	**–1,345**

9:1

1 Other financial income and expenses attributable to financial instruments amounted to SEK –606 M (–978). The amount is specified in note 30 Financial Instruments in table 30:3.

10 INCOME TAXES

ACCOUNTING POLICY

Income tax for the period includes current and deferred taxes. Current taxes are calculated on the basis of the tax regulations prevailing in the countries where the group companies have operations.

Deferred taxes are recognized on differences that arise between the taxable value and carrying value of assets and liabilities as well as on tax-loss carryforwards. Deferred tax assets are recognized to the extent it is probable that they will be utilized against future taxable profits.

Deferred tax liabilities related to temporary differences on investments in subsidiaries, joint ventures and associated companies are recognized in the balance sheet except when the Volvo Group controls the timing of the reversal of the temporary difference related to accumulated undistributed earnings and it is probable that a reversal will not be done in the foreseeable future.

Tax laws in Sweden and certain other countries allow companies to defer payment of taxes through allocations to untaxed reserves. In the Volvo Group financial statements, untaxed reserves give rise to temporary differences which are recognized as deferred tax liabilities.

Tax liabilities are recognized for income tax charges that are probable as a result of identified risks. Hence, when it is probable that the taxation authority or court will not accept an uncertain income tax treatment under tax law, adjustments of the tax liability are made for the estimated outcome. Tax claims for which no adjustment of the tax liability is considered required are generally reported as contingent liabilities.

» **Read more in Note 24** Contingent liabilities and contingent assets.

SOURCE OF ESTIMATION UNCERTAINTY AND CRITICAL JUDGMENTS

Deferred taxes

The Volvo Group recognizes deferred tax assets related to tax-loss carryforwards. The deferred tax assets are recognized based on a thorough assessment in order to ensure that it is probable that sufficient taxable profits will be generated in the coming years that will enable the tax-loss carryforwards to be utilized. The assessment is based on an evaluation of business plans. In addition, the possibility to offset tax assets and tax liabilities and the fact that the major part of the tax-loss carryforwards is related to countries with long or indefinite periods of utilization is considered. As a consequence of the Covid-19 pandemic the evaluation of business plans for current year has been made on a more detailed level in order to evaluate potential risks. The evaluation has included potential limitations in time in certain markets.

If deferred tax assets related to tax-loss carryforwards are not expected to be realized based on current business plans, valuation allowances are recognized. If actual results differ from the business plans, or if business plans for future periods are adjusted, changes in the valuation allowance may be required. Such recognitions and adjustments could have a significant impact on the financial position and the income for the period.

Uncertainty over income tax treatments and claims

The Volvo Group regularly evaluates income tax positions to determine if a tax liability or a contingent liability shall be recognized. The judgment is based on several factors, such as changes in facts and circumstances, the progress of the case and experience in similar cases. The actual outcome of income tax positions may deviate from the expected outcome and materially affect future financial statements.

Distribution of Income taxes	2020	2019
Current taxes relating to the period	–6,853	–9,809
Adjustment of current taxes for prior periods	278	1,016
Deferred taxes originated or reversed during the period	926	–981
Remeasurements of deferred tax assets	–194	–563
I/S Total income taxes	**–5,843**	**–10,337**

10:1

The Swedish corporate income tax rate amounted to 21% (21) in 2020. The table below explains the major reasons for the difference between the Swedish corporate income tax rate and the Volvo Group's effective tax rate, based on income after financial items.

Reconciliation of effective tax rate %	2020	2019
Swedish corporate income tax rate	**21**	**21**
Difference between corporate tax rate in Sweden and other countries	3	2
Non-taxable income	–3	–4
Non-deductible expenses	1	0
Current taxes related to prior years	–1	0
Remeasurement of deferred taxes	1	2
Other differences	1	0
Effective tax rate for the Volvo Group	**23**	**22**

10:2

The effective tax rate for the Volvo Group, as of December 31, 2020, was mainly impacted by a changed country mix in the Volvo Group's earnings.

Specification of deferred tax assets and liabilities	Dec 31, 2020	Dec 31, 2019
Deferred tax assets:		
Unused tax-loss carryforwards	2,186	2,547
Other unused tax credits	755	78
Intercompany profit in inventories	1,270	1,570
Write down of inventories	499	684
Valuation allowance for doubtful receivables	1,068	1,130
Provisions for warranties	2,861	3,756
Provisions for residual value risks	274	312
Lease liabilities	1,252	1,422
Provisions for post-employment benefits	4,477	4,511
Provisions for restructuring measures	126	39
Land	–	1,290
Other deductible temporary differences	5,714	6,287
Deferred tax assets before deduction for valuation allowance	**20,481**	**23,626**
Valuation allowance	–828	–689
Deferred tax assets after deduction for valuation allowance	**19,653**	**22,937**
Netting of deferred tax assets and liabilities	–9,058	–9,695
B/S Deferred tax assets, net	**10,595**	**13,242**
Deferred tax liabilities:		
Accelerated depreciation on property, plant and equipment	1,552	1,914
Accelerated depreciation on leasing assets	2,225	2,808
Right-of-use assets, leased	1,207	1,376
LIFO valuation of inventories	352	361
Capitalized product and software development	2,271	2,570
Untaxed reserves	2,239	2,239
Other taxable temporary differences	2,472	2,775
Deferred tax liabilities	**12,318**	**14,043**
Netting of deferred tax assets and liabilities	–9,053	–9,700
B/S Deferred tax liabilities, net	**3,265**	**4,343**
Deferred tax assets and liabilities, net[1, 2]	**7,330**	**8,899**

10:3

1 The deferred tax assets and liabilities are recognized in the balance sheet partially on a net basis, after taking into account offsetting possibilities. Deferred tax assets and liabilities have been measured at the tax rates that are expected to be applied during the period when the asset is realized or the liability is settled, according to the tax rates and tax regulations that have been resolved or enacted at the balance sheet date.

2 A reclassification has been made to assets held for sale of SEK 1,530 M (84). » Read more in Note 3 Acquisitions and divestments of shares and operations.

The total valuation allowance for deferred tax assets amounted to SEK 828 M (689) as of December 31, 2020. Most of the allowance, SEK 690 M (–), consisted of allowance for a tax credit in Brazil. For 2019 most of the allowance, SEK 530 M, consisted of allowance for unused tax-loss carryforwards, mainly related to Japan.

As of December 31, 2020, the Volvo Group's gross unused tax-loss carryforwards amounted to SEK 9,350 M (9,243) pertaining to deferred tax assets of SEK 2,186 M (2,547) recognized in the balance sheet. Out of the total deferred tax asset attributable to unused tax-loss carryforwards, SEK 929 M (–) pertained to Sweden and SEK 884 M (1,173) to France. In Sweden the unused tax-loss carryforwards emerged due to restrictions in distributing group contributions.

The gross unused tax-loss carryforwards will expire according to the following table.

Due date, unused tax-loss carryforwards gross	Dec 31, 2020	Dec 31, 2019
after 1 year	0	1,490
after 2 years	5	430
after 3 years	47	415
after 4 years	164	347
after 5 years	23	415
after 6 years or more[1]	9,110	6,145
Total[2]	**9,350**	**9,243**

10:4

1 Tax-loss carryforwards with long or indefinite periods of utilization were mainly related to Sweden and France. Tax-loss carryforwards with indefinite periods of utilization amounted to SEK 8,839 M (5,790) which corresponded to 95% (63) of the total unused tax-losses carryforward.

2 A reclassification has been made to assets held for sale of SEK 1,437 M (–),

» **Read more in Note 3** Acquisitions and divestments of shares and operations.

Changes in deferred tax assets and liabilities, net	2020	2019
Deferred tax assets and liabilities, net, opening balance	**8,899**	**9,377**
Recognized in Income statement	732	–1,544
Recognized in Other comprehensive income, whereof:		
Remeasurements of defined-benefit pension plans	406	807
Remeasurements of holdings of shares at fair value	–	–4
Reclassification to assets and liabilities held for sale	–1,446	–84
Translation differences and other changes	–1,261	347
Deferred tax assets and liabilities, net, as of December 31	**7,330**	**8,899**

10:5

The cumulative amount of undistributed earnings in foreign subsidiaries, which the Volvo Group currently intends to indefinitely reinvest outside of Sweden and which no deferred income tax have been accounted for, amounted to SEK 28 billion (30) at year end. Undistributed earnings pertaining to countries where the dividends are not taxable are excluded.

» **Read more in Note 4** Goals and policies in financial risk management about how the Volvo Group handles currency exposure of equity.

11 NON-CONTROLLING INTEREST

ACCOUNTING POLICY

Owners with a non-controlling interest have a limited ownership of shares and voting rights in a subsidiary, thereby also limited rights to the subsidiary's equity. Non-controlling interest equity is presented separately from the Parent Company's equity. In acquisitions, non-controlling interests are valued either at fair value or to a proportionate share of the acquired company's net assets. Ownership changes in non-controlling interests, not resulting in change of control, are recognized within equity.

The Volvo Group has a few non-wholly owned subsidiaries, of which Shandong Lingong Construction Machinery Co. (Lingong), in China, is the largest company with non-controlling interest. Owners with non-controlling interests hold a 30% shareholding in the company. During 2020, the profit allocated to the non-controlling interest in Lingong amounted to SEK 742 M (614). The accumulated amount allocated to the non-controlling interest within equity of Lingong amounts to SEK 2,806 M (3,043).

The following table presents summarized financial information for Shandong Lingong Construction Machinery Co.

Summarized income statement	2020	2019
Net sales	24,814	20,851
Operating income	2,734	2,358
Income for the period	**2,474**	**2,046**
Other comprehensive income[1]	–704	97
Total comprehensive income for the period[1]	**1,770**	**2,143**
Dividends paid to non-controlling interest	768	–

11:1

Summarized balance sheet	Dec 31, 2020	Dec 31, 2019
Non-current assets	3,589	3,334
Marketable securities, cash and cash equivalents	5,564	5,239
Current assets	14,809	13,325
Total assets	**23,962**	**21,898**
Non-current liabilities	702	217
Current liabilities	13,906	11,536
Total liabilities	**14,608**	**11,753**
Equity attributable to:		
Owners of AB Volvo[1]	6,548	7,101
Non-controlling interest[1]	2,806	3,043

11:2

1 Includes exchange differences from translating equity in foreign subsidiaries in the Volvo Group.

12 INTANGIBLE ASSETS

ACCOUNTING POLICY

Volvo Group applies the cost method for recognition of intangible assets, consisting of goodwill, capitalized product and software development and other intangible assets.

Goodwill
Goodwill is recognized as an intangible asset with indefinite useful life. For non-depreciable assets such as goodwill, impairment tests are performed annually, as well as if there are indications of impairments during the year. Goodwill is allocated and tested at the level of cash-generating units which are identified as the Volvo Group's operating segments. If the carrying amount of the tested cash-generating unit exceeds the calculated recoverable amount, an impairment loss is recognized for the difference. The recoverable amount for a cash-generating unit is determined on the basis of value in use. The Volvo Group's valuation model is based on a discounted cash flow model, with a forecast period of five years. The valuation is based on a business plan which is an integral part of the Volvo Group's financial planning process and represents management's best estimate of the development of the Group's operations. Assumption of 2% (2) long-term market growth beyond the forecast period and the Group's expected performance in relation to this environment is a basis for the valuation. In the model, the Volvo Group is expected to maintain stable capital efficiency over time. Other parameters considered in the calculation are operating income, mix of products and services, expenses and level of capital expenditures. The Volvo Group uses a discount rate at 10% (10) before tax for 2020.

In 2020, the recoverable amount of Volvo Group's operations exceeded the carrying amount for all operating segments, thus no impairment was recognized. The Volvo Group has also analyzed whether a negative adjustment of several percentage points on the used assumptions for discount rate and operating income would result in impairment for goodwill, however none of the operating segments would be impaired as a result of this analysis. The operating parameters applied in the valuation are based on management's strategy and could indicate higher value than historical performance for each operating segment. Furthermore, the Volvo Group is operating in a cyclical industry why performance could vary over time.

The headroom differs between the operating segments why they are sensitive to changes in the assumptions described above to a varying degree. Therefore, the Volvo Group continuously follows the performance of the operating segments whose headroom is dependent on the fulfillment of the Volvo Group's assessments. Instability in the recovery of the market and volatility in interest and currency rates may lead to indications of a need for impairment. The most important factors for the future operations of the Volvo Group are described in the Volvo Group operating segment section, as well as in the Risk management section.

Research and development
Expenditures for the development of new products and software are recognized as intangible assets if such expenditures, with a high degree of certainty, will result in future financial benefits for the company. Intangible assets are amortized over the estimated useful life of the assets.

The rules require stringent criteria to be met for these development expenditures to be recognized as assets. For example, it must be possible to prove the technical functionality of a new product or software prior to its development expenditure being recognized as an asset. In normal cases, this means that expenditures are capitalized only during the industrialization phase of a product development project. Other research and development costs are recognized in the income statement as incurred.

The Volvo Group has developed a process for conducting product development projects, which has six phases focused on separate parts of the project. Every phase starts and ends with a reconciliation point, known as a gate, for which the criteria must be met for the project's decision making committee to allow the project to progress to the next phase. During the industrialization phase, the industrial system is prepared for serial production and the product is launched. A corresponding process is developed for software development.

Other intangible assets
Other intangible assets include trademarks, distribution networks, licenses and other rights. When participating in industrial projects in partnership with other companies the Volvo Group in certain cases pays an entrance fee to participate. These entrance fees are capitalized as intangible assets.

Amortization and impairment with finite useful life
Intangible assets other than goodwill are amortized on a straight line basis over their estimated useful life. Amortization is based on the cost of the assets, adjusted by impairments when applicable and estimated useful lives. Amortization is recognized in the respective function to which it belongs, meaning that amortization of product development is part of the research and development expenses in the income statement. Impairment tests for amortizable assets are performed if there are indications of impairment. In addition, for capitalized development cost for products and software not yet in use, impairment tests are performed annually. If the recoverable amount of the asset is less than the carrying amount, an impairment is recognized and the carrying amount of the asset is reduced to the recoverable amount. The recoverable amount is the higher of the fair value less costs of disposal and the value in use. The value in use is measured as the discounted future cash flows, which the asset is expected to generate either by itself or from the lowest cash-generating unit to which the asset belongs.

Amortization periods

Trademarks	Max 5 years
Distribution networks	10 years
Product and software development	3 to 8 years
Other intangible assets	3 to 5 years

SOURCE OF ESTIMATION UNCERTAINTY AND CRITICAL JUDGMENTS

Impairment of goodwill and other intangible assets
Impairment testing of goodwill and capitalized development cost not yet in use are performed annually and in case of indication of impairment. Other intangible assets, with finite useful lives, are tested in case of indication of impairment. As the outbreak of Covid-19 is an event and indication of impairment, additional impairment tests on both goodwill and capitalized development cost have been conducted during 2020 to reflect the uncertainties and estimated impact on the financial performance of the Volvo Group. When conducting impairment tests, estimates have to be made to determine the recoverable amounts of cash-generating units. The recoverable amount is based upon management's projections of future cash flows, which are generally based on internal business plans and forecasts. While management believes that estimates of future cash flows and other assumptions made are reasonable, there are uncertainties which could materially affect the valuations. As described in the accounting policy for goodwill, headroom differs between the operating segments and they are, to a varying degree, sensitive to changes in assumptions and the business environment.

Intangible assets, acquisition costs	Goodwill	Capitalized product and software development	Other intangible assets	Total intangible assets
Opening balance 2019	**24,135**	**49,122**	**8,511**	**81,768**
Investments[1]	–	3,772	174	**3,946**
Sales/scrapping	–	–28	–17	**–45**
Acquired and divested operations[1]	–38	–	0	**–38**
Translation differences	628	314	212	**1,153**
Reclassification at divestment[1]	–1,720	–4,754	–2,876	**–9,349**
Reclassifications and other	–24	5	–48	**–67**
Acquisition cost as of Dec 31, 2019	**22,981**	**48,431**	**5,956**	**77,369**
Investments[1]	–	2,263	759	**3,023**
Sales/scrapping	–	–3,829	–326	**–4,155**
Acquired and divested operations[1]	–13	–	0	**–13**
Translation differences	–1,229	–714	–354	**–2,297**
Reclassification at divestment[1]	499	796	841	**2,136**
Reclassifications and other	–10	–287	–31	**–328**
Acquisition cost as of Dec 31, 2020	**22,228**	**46,661**	**6,846**	**75,735**

12:1

Intangible assets, accumulated amortization and impairment	Goodwill	Capitalized product and software development	Other intangible assets	Total intangible assets
Opening balance 2019	–	**37,039**	**6,625**	**43,664**
Amortization	–	2,680	283	**2,963**
Impairment	–	0	0	**0**
Sales/scrapping	–	–31	–17	**–47**
Acquired and divested operations[1]	–	–	0	**0**
Translation differences	–	293	133	**425**
Reclassification at divestment[1]	–	–4,447	–1,806	**–6,254**
Reclassifications and other	–	0	–50	**–50**
Accumulated amortization and impairment as of Dec 31, 2019	**–**	**35,533**	**5,168**	**40,700**
Amortization	–	2,818	175	**2,993**
Impairment	–	0	150	**150**
Sales/scrapping	–	–3 824	–326	**–4,150**
Acquired and divested operations[1]	–	–	0	**0**
Translation differences	–	–634	–230	**–864**
Reclassification at divestment[1]	–	2,134	499	**2,632**
Reclassifications and other	–	–302	–4	**–305**
Accumulated amortization and impairment as of Dec 31, 2020	**–**	**35,725**	**5,432**	**41,157**
B/S **Net value in balance sheet as of December 31, 2019[2]**	**22,981**	**12,899**	**788**	**36,668**
B/S **Net value in balance sheet as of December 31, 2020[2]**	**22,228**	**10,936**	**1,414**	**34,577**

12:2

1 » **Read more in Note 3** Acquisitions and divestments of shares and operations, for a description of acquired and divested operations as well as assets and liabilities held for sale.

2 Acquisition costs less accumulated amortization and impairments.

Goodwill per operating segment	Dec 31, 2020	Dec 31, 2019
Trucks	11,993	11,983
Construction Equipment	8,568	9,198
Buses	1,008	1,083
Other operating segments	659	717
Total goodwill value	**22,228**	**22,981**

12:3

13 TANGIBLE ASSETS

ACCOUNTING POLICY

The Volvo Group applies the cost method for measurement of tangible assets, consisting of property, plant, equipment and investment property as well as assets under operating leases.

Buildings include owner-occupied properties and investment properties. Investment properties are properties owned for the purpose of obtaining rental income and appreciation in value. Investment properties are recognized at cost. For disclosure purposes, information regarding the estimated fair value of investment properties is based on an internal discounted cash flow projection as relevant observable market inputs for the assets are not available. The required return is based on current property market conditions for comparable properties in comparable locations. Hence, the applied valuation method to measure fair value is classified as level 3 of the fair value hierarchy and there have not been any changes in valuation method during the year. Land contains land and land improvements. Machinery and equipment consists of production related assets such as machinery, type-bound tools and other equipment. Construction in progress are assets under construction and advanced payments. Right-of-use assets relates to lease contracts with the Volvo Group as a lessee.

Assets under operating leases are mainly owned by the Volvo Group. These transactions are accounted for as operating lease transactions and consists of contractual operating lease agreements with customers within Financial Services and rental fleet which are assets used in a fleet for rental business within Industrial Operations. Some rental fleet assets are leased by the Volvo Group and later sub-leased to customers as operating leases. Sales with residual value commitments within Industrial Operations are also recognized within assets under operating leases.

» **Read more in Note 7** Revenue about sales with residual value commitments.

» **Read more in Note 14** Leasing about right-of-use assets and assets under operating leases.

Depreciation and impairment

Property, plant, equipment and investment property are depreciated over their estimated useful lives. Land is not depreciated. Depreciation is recognized on a straight-line basis based on the cost of the assets, adjusted by residual value when applicable, and estimated useful lives. Right-of-use assets are generally depreciated over the lease term on a straight-line basis. Assets under operating leases are depreciated on a straight-line basis over the contract period. During the contract period, the depreciable amount is adjusted by accelerated depreciation and/or write-downs. The adjustment is recognized through the income statement to correspond to estimated future net realizable value to continuously reflect potential residual value risks at the end of the contract period. Depreciation is recognized in the respective function to which it belongs. Impairment tests are performed if there are indications of impairment by calculating a recoverable amount which is the higher of the asset's fair value less cost of disposal and its value in use.

Depreciation periods	
Type-bound tools	3 to 8 years
Operating leases, rental fleet	3 to 5 years
Sales with residual value commitments	3 to 5 years
Machinery and equipment	5 to 20 years
Buildings and investment properties	20 to 50 years
Land improvements	20 years

13:1

SOURCE OF ESTIMATION UNCERTAINTY AND CRITICAL JUDGMENTS

Impairment of tangible assets

Impairment tests are performed if there is any indication that a tangible asset has been impaired. The impairment tests are based on estimation of the recoverable amount of the asset, or the cash-generating unit to which the asset belongs. To determine the recoverable amount, projections of future cash flows are used, which are based upon internal business plans and forecasts. While management believes that estimates of future cash flows and other assumptions made are reasonable, there are uncertainties which could materially affect the valuations.

Residual value risks

Volvo Group is exposed to residual value risks related to assets under operating leases which is the risks that the Volvo Group in the future would have to dispose used vehicles at a loss if the price development of these products is worse than what was expected when the contracts were entered. The assessment of residual value risks is based upon an estimation of the used vehicle's future net realizable value (fair market value). The estimated future net realizable value of the vehicles at the end of the contract period is monitored individually on a continuing basis. Thus, a decline in prices for used vehicles may negatively affect the Volvo Group's operating income. High inventories in the truck industry and the construction equipment industry and low demand may have a negative impact on the prices of new and used vehicles. In monitoring estimated net realizable value of each vehicle included as assets under operating leases, management considers current price level of the used product model. The price level is impacted by value of optional equipment, mileage, current condition, future price deterioration due to expected change of market conditions, alternative distribution channels, inventory lead-time, repair and reconditioning costs, handling costs, indirect costs associated with the sale of used vehicles and legislative demands. Due to the outbreak of Covid-19, an extensive analysis has been made during 2020 to evaluate the effects on used vehicles estimated net realizable value. A prolongation or worsening of the Covid-19 pandemic may lead to further price pressure and/or an increase of the return rate for used vehicles, which may give rise to accelerated depreciation and/or write-downs.

Reclassifications

Reclassifications and other presented in the tables 13:2 and 13:3 mainly consist of construction in progress, rental fleet and assets related to sales with residual value commitments (buyback and tradebacks).

For construction in progress, reclassification occurs when the asset is available for use by transferring the assets to the respective category within property, plant and equipment.

For rental fleet and sales with residual value commitments, reclassifications occur when the vehicle is sold or rented out to customers by transferring the vehicle from inventory to assets under operating leases. If the vehicle is returned by the end of the residual value commitment period or the leasing period, the vehicle is reclassified back to inventory.

Investment properties

The acquisition value of investment properties at year-end amounted to SEK 93 M (91). Reclassifications amounted to SEK 0 M (0). Accumulated depreciation amounted to SEK 33 M (28) at year-end, of which SEK 4 M (4) refers to 2020. The net carrying value amounted to SEK 60 M (63). The estimated fair value of investment properties amounted to SEK 91 M (94) at year-end and 97% (98) of the area available for lease was leased out during the year. Operating income was affected by rental income from investment properties that amounted to SEK 11 M (11) and direct costs that amounted to SEK 7 M (7).

Tangible assets, Acquisition cost	Property, plant, equipment and investment property					Assets under operating leases[1]			
	Buildings	Land	Machinery and equipment	Construction in progress	Right-of-use assets[1]	Operating leases	Rental fleet	Sales w. residual value commitments[2]	**Total tangible assets**
Opening balance 2019	**39,423**	**12,514**	**85,591**	**5,801**	**–**	**31,832**	**6,096**	**25,233**	**206,490**
Transition effect IFRS 16[4]	–715	–78	–501	–	7,503	–	–	–	**6,209**
Investments	502	335	2,198	5,094	1,914	9,944	0	0	**19,987**
Sales/scrapping	–284	–284	–3,474	–5	–200	–11,268	0	0	**–15,514**
Acquired and divested operations[3]	–	–	–8	–	–34	–	–	–	**–43**
Translation differences	1,264	643	1,644	29	189	1,069	210	304	**5,352**
Reclassified at divestment[3]	–9,074	–6,297	–9,073	–79	–830	–	–	–188	**–25,540**
Reclassifications and other	1,729	128	2,084	–3,954	164	826	–963	–49	**–34**
Acquisition costs as of Dec 31, 2019	**32,847**	**6,962**	**78,460**	**6,887**	**8,706**	**32,402**	**5,343**	**25,301**	**196,908**
Investments	480	45	1,523	3,686	1,612	8,564	–	–	**15,910**
Sales/scrapping	–502	–150	–2,758	–2	–580	–10,669	–	–	**–14,661**
Acquired and divested operations[3]	–94	–3	–172	–	–	–	–	–	**–270**
Translation differences	–2,246	–453	–5,242	–370	–663	–2,288	–454	–1,475	**–13,191**
Reclassified at divestment[3]	–129	–72	2,150	–96	–72	–	–	–206	**1,576**
Reclassifications and other	1,298	216	2,002	–3,489	449	–275	–188	–288	**–275**
Acquisition costs as of Dec 31, 2020	**31,655**	**6,544**	**75,964**	**6,617**	**9,452**	**27,734**	**4,701**	**23,332**	**185,998**

13:2

1 » **Read more in Note 14** Leasing about right-of-use assets and assets under operating leases.

2 » **Read more in Note 7** Revenue about sales with residual value commitments.

3 » **Read more in Note 3** Acquisitions and divestments of shares and operations, for a description of acquired and divested operations as well as assets and liabilities held for sale.

4 The opening balance for 2019 is restated due to the implementation of IFRS 16.

Tangible assets, Accumulated depreciation and impairments	Property, plant, equipment and investment property					Assets under operating leases[1]			
	Buildings	Land	Machinery and equipment	Construction in progress	Right-of-use assets[1]	Operating leases	Rental fleet	Sales w. residual value commitments[2]	**Total tangible assets**
Opening balance 2019	**20,805**	**1,390**	**65,446**	**15**	**–**	**9,643**	**1,730**	**8,685**	**107,714**
Transition effect IFRS 16[4]	–219	–10	–279	–	508	–	–	–	**0**
Depreciation	1,436	101	4,736	–	2,125	4,708	1,016	2,554	**16,676**
Impairment	5	–2	0	–	0	0	27	916	**946**
Sales/scrapping	–201	–23	–3,299	–	–92	–5,105	–	–	**–8,720**
Acquired and divested operations[3]	0	–	–8	–	–3	0	–	–	**–11**
Translation differences	663	32	1,225	–	–3	323	64	111	**2,415**
Reclassified at divestment[3]	–5,443	–199	–7,641	–	–379	–	–	–47	**–13,710**
Reclassifications and other	21	10	–164	–	–188	231	–1,308	–3,829	**–5,226**
Accumulated depreciation and impairments as of Dec 31, 2019	**17,068**	**1,299**	**60,016**	**15**	**1,968**	**9,800**	**1,529**	**8,391**	**100,084**
Depreciation	1,226	75	4,271	–	2,021	4,574	729	3,059	**15,954**
Impairment	–6	9	1	–	0	0	–11	1,510	**1,502**
Sales/scrapping	–424	–10	–2,618	–	–355	–4,805	–	–	**–8,211**
Acquired and divested operations[3]	–38	–1	–152	–	0	0	–	–	**–191**
Translation differences	–1,119	–79	–3,159	–	–218	–682	–131	–401	**–5,790**
Reclassified at divestment[3]	–34	–13	1,375	–	167	–	–	33	**1,527**
Reclassifications and other	15	–4	–79	–15	–84	–375	–483	–4,929	**–5,955**
Accumulated depreciation and impairments as of Dec 31, 2020	**16,688**	**1,276**	**59,656**	**0**	**3,498**	**8,511**	**1,632**	**7,662**	**98,923**
B/S **Net value in balance sheet as of Dec 31, 2019[5]**	**15,779**	**5,663**	**18,444**	**6,872**	**6,738**	**22,602**	**3,814**	**16,910**	**96,822**
B/S **Net value in balance sheet as of Dec 31, 2020[5]**	**14,967**	**5,268**	**16,308**	**6,617**	**5,953**	**19,223**	**3,069**	**15,670**	**87,075**

13:3

1 » **Read more in Note 14** Leasing about right-of-use assets and assets under operating leases.

2 » **Read more in Note 7** Revenue about sales with residual value commitments.

3 » **Read more in Note 3** Acquisitions and divestments of shares and operations, for a description of acquired and divested operations as well as assets and liabilities held for sale.

4 The opening balance for 2019 is restated due to the implementation of IFRS 16.

5 Acquisition costs less accumulated depreciation and impairments.

14 LEASING

ACCOUNTING POLICY

Volvo Group as the lessor
Leasing contracts are defined in two categories, operating and finance leases, depending on the contracts' financial implications.

Operating leases are offered from Financial Services (contractual operating leases) and from Industrial Operations (rental fleet agreements). Sales with residual value commitments (buybacks and tradebacks) are also accounted for as operating lease transactions when the customer has a significant economic incentive to exercise the option to return the vehicle and the control therefore has not been transferred to the customer. Operating lease agreements are recognized as tangible assets in assets under operating leases and are valued at cost less accumulated depreciation and impairment, if needed. The cost of an asset comprises the acquisition value and any initial direct costs related to the contract. Depreciation of the asset is recognized on a straight-line basis over the contract period. During the period the depreciable amount is adjusted through the income statement by depreciations or write-downs to correspond to the estimated future realizable value to reflect residual value risks at the end of the contract period. Lease income is equally distributed over the contract period and recognized within net sales.

» **Read more in Note 7** Revenue, about sales with residual value commitments.

» **Read more in Note 13** Tangible assets, about residual value risks related to assets under operating lease.

Finance leases are offered from Financial Services. As Industrial Operations manufacture the vehicles which are leased from Financial Services to the customers, the Volvo Group is acting as a manufacturer lessor. Hence, a finance lease asset gives rise to a selling profit which is recognized within Industrial Operations. Finance lease contracts are recognized as non-current and current customer-financing receivables within Financial Services. The asset is measured at an amount equal to the net investment in the finance lease contract corresponding to the gross investment (future minimum lease payments and unguaranteed residual value) discounted with the rate in the finance lease contract and reduced by unearned finance income and allowance for expected credit losses. Assessment of allowance for expected credit losses is reflected in the valuation of customer-financing receivables and recognized at initial recognition and reassessed during the contract period. Lease income is recognized as interest income within net sales in Financial Services. Variable lease payments not dependent on an index or rate are recognized as income as they occur. Payments received from finance lease contracts are distributed between interest income and amortization of the receivable.

» **Read more in Note 15** Customer-financing receivables, about finance leases.

Volvo Group as the lessee
Lease contracts are recognized as right-of-use (RoU) assets as well as interest-bearing lease liabilities in the balance sheet. Lease liabilities are recognized within other loans and are measured by the present value of future lease payments. The lease payments are discounted by using a rate reflecting what the Volvo Group would have to pay to borrow funds to acquire a similar asset, with similar collateral and similar term. RoU assets are presented as tangible assets and are valued at cost less accumulated depreciation and impairment, if needed. The cost of an RoU asset contains the initial amount of the lease liability adjusted for any lease payments made before the commencement date, less any lease incentives received. Moreover, any initial direct costs are included as well as an estimate of costs to be incurred in dismantling, removing or restoring the underlying asset. The leased asset is depreciated on a straight-line basis over the lease term, or over the useful life of the underlying asset if the ownership is transferred to the Volvo Group at the end of the lease term. The lease expense is recognized as depreciation of the asset within operating income and interest expense within the finance net. Payments made are distributed between interest paid and amortization of the lease liability.

Lease contracts with the Volvo Group as the lessee are primarily contracts of real estate (such as office buildings, warehouses and dealer premises), company cars and production related assets. For real estate and company car leases, service components are normally a considerable portion of the contracts and are therefore separated. The service components are recognized as operating expenses and not included in the RoU asset and the lease liability. For other lease contracts, both the leased asset and services are included in the RoU asset and the lease liability.

If a lease contract includes variable lease payments not dependent on an index or rate, or include a low value asset or has a lease term that is twelve months or less, the lease payments are recognized as operating expenses as they occur.

During 2020, IASB added an exemption for lessees regarding accounting for Covid-19 related rent concessions. The Volvo Group does not apply the exemption since the lease modifications that have been negotiated as a direct result of the Covid-19 pandemic in the Volvo Group during the year have not been material.

SOURCE OF ESTIMATION UNCERTAINTY AND CRITICAL JUDGMENTS

Measurement of lease liabilities and right-of-use assets
When entering a lease contract, judgments related to contract scope, lease term and interest rate used when discounting future lease payments are made which affects the measurement of the lease liability and the RoU asset.

Assessment of contract scope includes judgments whether a leased asset and/or a service component is identified in the contract. In combined contracts, the total contract amount is allocated between the leased asset and the service by using a market stand-alone price.

When determining the lease term of a contract, judgments are also required. The lease term includes the non-cancellable period. If the Volvo Group is reasonably certain to use an option to extend the lease, or not to use an option to terminate the lease in advance, this is also considered. The contracts contain a range of different conditions. Extension and termination options are mainly related to real estate leases. Thus, all relevant facts and circumstances that create an economic incentive to include optional periods are evaluated. The importance of the underlying asset in the operations and its location, availability of suitable alternatives, significant leasehold improvements, level of rentals in optional periods compared to market rates as well as past practice are examples of factors included in the assessment. Lease terms are negotiated on an individual basis and are reassessed if an option is exercised.

Judgments are also required to determine the interest rate when discounting future lease payments and whether the interest rate implicit in the lease can be readily determined and thereby used, or if the Volvo Group's incremental borrowing rate should be used.

Volvo Group as the lessor

Lease income	Dec 31, 2020	Dec 31, 2019
Finance leases		
Finance income on customer-financing receivables	2,625	2,738
Total	**2,625**	**2,738**
Operating leases		
Lease income on assets under operating lease	11,532	12,305
Total	**11,532**	**12,305**

14:1

During 2020, the profit from sale of vehicles subject to finance leases amounted to SEK 2,863 M (3,959) and was recognized within Industrial Operations.

As of December 31, 2020, future lease income from non-cancellable finance and operating leases (minimum lease fees excluding sales with residual value commitments) amounted to SEK 70,293 M (75,198).

» **Read more in Note 15** Customer-financing receivables about finance leases.

Maturity analysis of lease payments receivable	Finance leases	Operating leases
2021	20,268	7,775
2022	14,341	5,553
2023	9,179	3,406
2024	4,869	1,569
2025	2,028	657
2026 or later	462	186
Total undiscounted lease payments	**51,147**	**19,146**
Unguaranteed residual value	917	
Unearned finance income	–3,631	
Allowance for expected credit losses	–1,287	
Customer-financing receivables (current and non-current)	**47,146**	

14:2

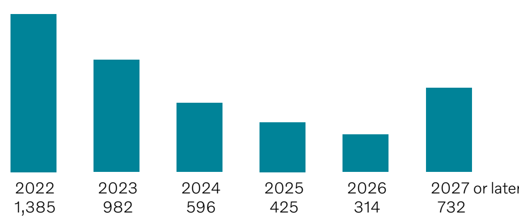
Volvo Group as the lessee

Lease liabilities	Dec 31, 2020	Dec 31, 2019
Non-current lease liabilities	4,434	5,334
Current lease liabilities	1,552	1,755
Total lease liabilities[1]	**5,986**	**7,089**

14:3

1 Non-current and current lease liabilities amounting to SEK 377 M (0) and SEK 124 M (0) respectively have been reclassified to liabilities held for sale, » **Read more in Note 3** Acquisitions and divestments of shares and operations.

Non-current lease liabilities maturities, SEK M



14:4

During 2020, total cash outflow related to leases amounted to SEK 3,231 M (3,283), with a distribution of SEK 975 M (1,249) within operating cash flow and SEK 2,256 M (2,034) within financing activities.

Carrying amount of right-of-use assets as of Dec 31, 2020	Buildings	Land	Machinery and equipment	Company cars	Asset under operating lease and rental fleet[1]	Total
Acquisition cost						
Opening balance 2020	6,548	512	639	1,007	418	**9,124**
Additions to right-of-use assets[2]	293	67	162	224	21	**767**
Acquisition cost as of Dec 31, 2020	**6,841**	**579**	**801**	**1,231**	**439**	**9,891**
Accumulated depreciation						
Opening balance 2020	–1,331	–68	–207	–362	–131	**–2,099**
Depreciation	–1,358	–40	–187	–436	–64	**–2,085**
Other changes	348	9	28	105	54	**544**
Accumulated depreciation as of Dec 31, 2020	**–2,341**	**–99**	**–366**	**–693**	**–141**	**–3,640**
Carrying amount in balance sheet as of Dec 31, 2020[3]	**4,500**	**480**	**435**	**538**	**298**	**6,251**

Carrying amount of right-of-use assets as of Dec 31, 2019	Buildings	Land	Machinery and equipment	Company cars	Asset under operating lease and rental fleet[1]	Total
Acquisition cost						
Opening balance 2019	5,535	419	920	629	397	**7,900**
Additions to right-of-use assets[2]	1,013	93	–281	378	21	**1,224**
Acquisition cost as of Dec 31, 2019	**6,548**	**512**	**639**	**1,007**	**418**	**9,124**
Accumulated depreciation						
Opening balance 2019	–219	–10	–271	–8	–136	**–644**
Depreciation	–1,371	–51	–283	–419	–62	**–2,187**
Other changes	259	–7	347	65	67	**732**
Accumulated depreciation as of Dec 31, 2019	**–1,331**	**–68**	**–207**	**–362**	**–131**	**–2,099**
Carrying amount in balance sheet as of Dec 31, 2019[3]	**5,217**	**444**	**432**	**645**	**287**	**7,025**

14:5

1 Refer to the assets leased by the Volvo Group which are later sub-leased to customers as operating lease.

2 Additions to RoU assets mainly relate to new lease contracts signed.

3 RoU assets amounting to SEK 689 M (451) have been reclassified to assets held for sale,
» **Read more in Note 3** Acquisitions and divestments of shares and operations.

Recognized in the income statement	2020	2019
Interest expense on lease liabilities within Financial Services	–2	–1
Depreciation of right-of-use assets	–2,085	–2,187
Short term lease expense	–530	–785
Low value asset expense	–114	–116
Variable lease expense	–47	–33
Income from sub-leasing right-of-use assets	140	145
Gain or losses on right-of-use assets	2	24
Recognized in operating income	**–2,636**	**–2,952**
Interest expense on lease liabilities within Industrial Operations	–282	–338
Recognized in net financial items	**–282**	**–338**

14:6

15 CUSTOMER-FINANCING RECEIVABLES

ACCOUNTING POLICY

Installment credits, dealer financing and other receivables within customer-financing receivables are held as part of a business model whose objective is of collecting contractual cash flows. The contractual cash flows are solely payments of principal and interest and are valued at amortized cost in accordance with the effective interest method. Finance lease contracts are valued at amortized cost, for further information on recognition and classification see note 14 Leasing.

The Volvo Group is applying the simplified expected credit loss model for customer-financing receivables, under which the loss allowance is measured at an amount equal to lifetime expected credit losses. The allowance is recorded at initial recognition and is reassessed during the contract period.

Interest income on customer-financing receivables is recognized within net sales, mainly within Financial Services. Changes to the allowance for expected credit losses are recognized in other operating income and expense.

SOURCE OF ESTIMATION UNCERTAINTY AND CRITICAL JUDGMENTS

Allowance for expected credit losses

The assessment of allowances for expected credit losses on customer-financing receivables is dependent on estimates including assumptions regarding past dues, repossession rates and quality level of repossessed collateral.

A collective assessment is made for customer-financing receivables that are not credit impaired. The assets are grouped based on shared risk characteristics such as type of customer, geographical area, initial credit risk rating, collateral type and date of initial recognition to evaluate the credit losses collectively. Historical information regarding credit loss experience is used to forecast future losses, adjusted for current and forecasted conditions in the different regions based on management's evaluation of macro-level and portfolio-level factors, such as GDP, oil prices, unemployment rates etc.

During the Covid-19 pandemic, the assessment process has been intensified. The collective assessment for customer-financing receivables that are not credit impaired is reviewed and adjusted on a more detailed level, in order to identify individual segments in each market that are significantly impacted by the pandemic, to forecast future losses on those individual segments. As a critical part in the collective assessment, the largest customers in each market are reviewed individually based on the financial condition of each customer and the value of the underlying collateral. The impact from government programs and modifications through extended payment terms is taken into consideration and is monitored closely for on-going payment performance and signs of impairment. Worst case scenarios from historical information regarding credit loss experience is also used in order to estimate the potential impact of the pandemic.

Overall, in the collective assessment the historical information regarding credit loss experience is still used as a base and is adjusted based on information from the detailed assessment from the largest customers. This provides a basic understanding of how the pandemic is impacting customers in various segments in each market to estimate expected credit losses on the rest of the customer-financing receivables portfolio.

An individual assessment is made for credit impaired customer-financing receivables based on the financial condition of the customers and the value of the underlying collateral and guarantees. The Volvo Group considers a financial asset credit impaired if it meets one or more of the following criteria; when there are indications that the customer is unlikely to pay, such as bankruptcy filing, unauthorized transfer of collateral, at surrender of collateral etc. or, at the latest, when the customer fails to make contractual payment within 90 days of when the receivable falls due.

Risk management practices

Other than the dealer financing, customer-financing receivables extend over several years, but normally the customers make monthly payments throughout the term to reduce the outstanding exposure. The customer-financing receivables are secured by the financed commercial vehicles and equipment. However, in the case of customer default, the value of the repossessed commercial vehicles and equipment may not necessarily cover the outstanding financed amount. In order to mitigate this risk, Financial Services has strong portfolio management processes based on prudent credit approval, active monitoring of individual loan performance, utilization of in-house and external collections, portfolio segmentation analysis, and on-going monitoring of the economic, political and industry conditions in each market. In addition, other credit enhancements such as down payments, personal guarantees, credit insurance, liens on other property owned by the borrower etc. may be required at the time of origination or when there are signs of impairment. When customer-financing receivables exceed 90 days of overdue collateral repossession is initiated, although there may be circumstances where repossession is initiated earlier. When the collateral is repossessed, the net realizable value is established and the vehicle is transferred to inventory and becomes part of the Volvo Group's normal business activity of selling used vehicles and equipment and the expected loss on the customer-financing receivable is written off. If repossession has not occurred on customer-financing receivables exceeding 180 days of overdue the expected loss on the receivable is written off. Financial Services continues to engage in enforcement activity on all customer financing-receivables written off during the year to attempt to recover the contractual amount not previously received from the customer.

During 2020, a significant part of the customer-financing receivables has been modified through extended payment terms which is also delaying the individual assessment for credit impaired customer-financing receivables. The amortized cost on customer-financing receivables before modifications amounted to SEK 38.6 billion. The typical modification provided to customers are reduced or zero payments for approximately three months with the original yield on the contract.

» **Read more in Note 4** Goals and policies in financial risk management, for a description of credit risks, interest risks and currency risks.

As of December 31, 2020, the total allowances for expected credit losses in Financial Services amounted to 2.07% (1.51) of the total credit portfolio in the segment. This reserve ratio is used as an important measure for Financial Services and includes operating leases and inventory. Allowances for expected credit losses for customer-financing receivables has increased since the beginning of the year from SEK 2,343 M to SEK 2,900 M primarily due to the impact from the many disruptions in the economies around the world due to the outbreak of Covid-19. This has impacted all markets and segments in Financial Services. Most of the increase in the allowance for expected credit losses due to the pandemic is recognized in customer financing-receivables not credit impaired as specific customers have not yet been identified as credit impaired. The main reason is that a significant part of the portfolio is modified through extended payment terms, which is delaying any potential impairment.

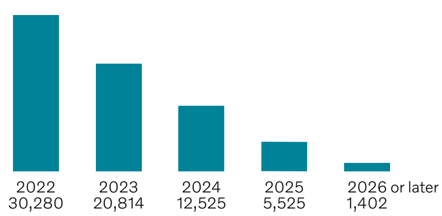
Non-current customer-financing receivables	Dec 31, 2020	Dec 31, 2019
Installment credits	40,732	41,212
Finance leases	28,576	29,682
Other receivables	1,239	989
B/S Non-current customer-financing receivables[1]	**70,547**	**71,883**

15:1

1 A reclassification has been made to assets held for sale of SEK 3,160 M (2,740), » **Read more in Note 3** Acquisitions and divestments of shares and operations.

The effective interest rate for non-current customer-financing receivables amounted to 4.87% (4.98) as of December 31, 2020.

Non-current customer-financing receivables maturities, SEK M



15:2

Current customer-financing receivables	Dec 31, 2020	Dec 31, 2019
Installment credits	21,427	21,732
Finance leases	18,571	18,993
Dealer financing	16,485	28 ,654
Other receivables	1,502	1 ,719
B/S Current customer-financing receivables[1]	**57,985**	**71,099**

15:3

1 A reclassification has been made to Assets held for sale of SEK 1,510 M (1,405), » **Read more in Note 3** Acquisitions and divestments of shares and operations.

The effective interest rate for current customer-financing receivables amounted to 4.71% (4.85) as of December 31, 2020.

Credit risk in customer-financing receivables	Dec 31, 2020	Dec 31, 2019
Customer-financing receivables gross	131,431	145,326
Allowance for expected credit losses for customer-financing receivables	–2,900	–2,343
Whereof allowance for credit impaired	*–611*	*–361*
Whereof allowance for not credit impaired	*–2,289*	*–1,982*
Customer-financing receivables, net of allowance	**128,531**	**142,982**

15:4

Change of allowance for expected credit losses for customer-financing receivables	2020		2019	
	Not credit impaired	Credit impaired	Not credit impaired	Credit impaired
Closing balance previous year	**1,982**	**361**	**1,859**	**329**
New valuation allowance charged to income	1,461	269	642	217
Reversal of valuation allowance charged to income	–3	–52	–40	–90
Utilization of valuation allowance related to actual losses	–0	–702	–0	–532
Movements between not credit impaired/credit impaired[1]	–802	802	–430	430
Translation differences	–297	–68	71	11
Reclassification	–	–	–11	–3
Syndication transactions and other	–52	0	–109	–1
Allowance for expected credit losses for customer-financing receivables as of December 31[2]	**2,289**	**611**	**1,982**	**361**

15:5

1 When a receivable becomes credit impaired a transfer of allowance is made to allowance for credit impaired receivables.

2 A reclassification has been made to Assets held for sale of SEK 16 M. » **Read more in Note 3** Acquisitions and divestments of shares and operations.

Customer-financing receivables Gross exposure	Dec 31, 2020					Dec 31, 2019				
	Not due	1–30	31–90	>90	**Total**	Not due	1–30	31–90	>90	**Total**
Customer-financing receivables total	118,974	8,248	2,657	1,551	**131,431**	130,818	10,223	3,017	1,268	**145,326**
Whereof not credit impaired	118,250	8,021	2,237	102	**128,610**	130,606	9,172	2,366	218	**142,362**
Whereof credit impaired	725	227	420	1,449	**2,821**	213	1,051	651	1,049	**2,963**

15:6

During the end of this year the majority of the customers have come to an end of their modification periods and have resumed to original payment levels. So far, the customers are generally able to make their payment obligations as a result of the extensions, increased government support programs and the financial recovery for companies during the modification periods provided by Financial Services and other obligors. Increased transport and construction activity in the second half of 2020 have also been beneficial for their financial situation. However, it is still expected that a number of customers will have difficulties to survive with the full impact of the economic downturn caused by the Covid-19 pandemic and when the government support programs no longer exist. The allowance for expected credit losses on credit impaired customer financing-receivables is expected to increase during next year as customers become impaired and at the same time the corresponding allowance for expected credit losses on customer financing-receivables not credit impaired will be released.

» **Read more in Note 30** Financial instruments, for information on the gain or loss recognized in the operating income arising from derecognition of customer-financing receivables in table 30:3.

Table 15:6 represents the gross credit exposure on customer-financing receivables within the Volvo Group per age interval. The lifetime expected credit loss allowance for customer-financing receivables not credit impaired amounted to SEK 2,289 M (1,982) and allowance for customer-financing receivables credit impaired amounted to SEK 611 M (361), included in tables 15:4 and 15:5. The remaining exposure was secured by liens on the financed commercial vehicles and equipment and, in certain circumstances, other credit enhancements such as personal guarantees, credit insurance, liens on other property owned by the borrower etc. Collaterals taken in possession that meet the criteria for recognition in the balance sheet amounted to SEK 155 M (278) as of December 31, 2020.

Concentration of credit risk

Customer concentration

The ten largest customers within Financial Services account for 5.6% (6.8) of the total asset portfolio. The rest of the portfolio is attributable to a large number of customers and the credit risk is therefore spread across many customers. During 2020 SEK 6.8 billion (11.3) of customer financing receivables were syndicated in order to reduce concentration risks.

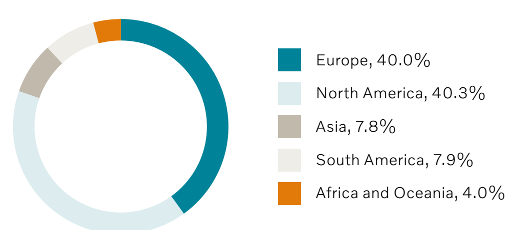
Concentration by geographical market

Graph 15:7 discloses the concentration of Financial Services portfolio divided into geographical markets.

» **Read more in Note 4** Goals and policies in financial risk management about credit risks.

» **Read more in the Board of Directors' report** about Financial Services' development during the year.

Geographic market, percentage of customer-financing portfolio (%)



15:7

16 RECEIVABLES

ACCOUNTING POLICY

Receivables are recognized at amortized cost. The Volvo Group is applying the simplified expected credit loss model for accounts receivables, under which the loss allowance is measured at an amount equal to lifetime expected credit losses. The allowance is recorded at initial recognition and is reassessed during the contract period. Changes to the allowance for expected credit losses for accounts receivables are recognized in other operating income and expense.

» **Read more in Note 30** Financial instruments in section derecognition of financial assets, for receivables subject to discounting activities.

SOURCE OF ESTIMATION UNCERTAINTY AND CRITICAL JUDGMENTS

Allowance for expected credit losses

Accounts receivables are short term by nature and consequently the risk assessment horizon is short. A collective assessment is made on accounts receivables not credit impaired. Historical information regarding credit loss experience is used to forecast future losses, adjusted for current and forecasted conditions. An individual assessment is made on credit impaired accounts receivables based on the financial condition of the customer. During the Covid-19 pandemic, the assessment process has been intensified. All Volvo Group entities have revisited their model for expected credit losses, taking into consideration the impact from the many disruptions in the economies around the world due to the outbreak of the Covid-19 pandemic, as well as from the significant government support measures implemented, when making allowances. Due to the significant changes in market conditions, the high level of uncertainty and the variation in impact on different markets and regions, individual assessments have increased.

Risk management practices
Credit risks are managed through active credit monitoring and follow-up routines in accordance with the Volvo Group Credit management directive. This directive includes different steps to perform when an invoice is not paid at due date. When a credit risk is verified, for example through a bankruptcy, or when an allowance has been unchanged for two years and it can be demonstrated that all required steps have been performed the allowance is reversed and the accounts receivables are written off. Apart from certain exceptions the Volvo Group continues to engage in enforcement activity even after a write-off in order to recover the contractual amount not previously received.

During the spring of 2020 renegotiated receivables increased, but during the autumn the amounts returned to prior levels and as per December 31, 2020 there is no significant impact on either the credit risk or the income statement. Renegotiated receivables continue to be closely monitored for on-going payment performance and signs of impairment.

As of December 31, 2020, the total allowance for expected credit losses for accounts receivables amounted to 2.12% (2.64) of total accounts receivables.

» **Read more in Note 4** Goals and policies in financial risk management, regarding credit risk.

Non-current receivables	**Dec 31, 2020**	Dec 31, 2019
Other interest-bearing receivables[1]	203	229
Interest and currency risk derivatives[2]	4,437	1,106
Contract and right of return assets[3]	3,390	3,279
Other receivables	4,733	4,645
Non-current receivables	**12,763**	**9,259**

16:1

1 The amount is the non-current part of other interest-bearing receivables in note 30 Financial instruments, table 30:1.
2 The amount is the non-current part of Interest and currency risk derivatives in note 30 Financial instruments, table 30:1.
3 » **Read more in Note 7** Revenue, about contract and right of return assets.

Current receivables	**Dec 31, 2020**	Dec 31, 2019
Other interest-bearing receivables[1]	199	1,275
Accounts receivables[2]	35,660	37,723
Prepaid expenses and accrued income	2,700	3,030
VAT receivables	2,638	3,223
Interest and currency risk derivatives[3]	1,612	909
Contract and right of return assets[4]	3,845	4,589
Other receivables	5,950	7,465
Current receivables, after deduction of allowance for expected credit losses on accounts receivables	**52,605**	**58,214**

16:2

1 The amount is the current part of other interest-bearing receivables in note 30 Financial instruments, table 30:1.
2 Accounts receivables of SEK 4,196 M (4,742) have been reclassified to assets held for sale, » **Read more in Note 3** Acquisitions and divestments of shares and operations.
3 The amount is the current part of Interest and currency risk derivatives in note 30 Financial instruments, table 30:1.
4 » **Read more in Note 7** Revenue, about contract and right of return assets.

Change of allowance for expected credit losses on accounts receivables	**2020**	2019
Opening balance	**1,021**	**1,221**
New allowance charged to income	378	380
Reversal of allowance charged to income	–418	–173
Utilization of allowance related to actual losses	–196	–121
Translation differences	–71	34
Reclassifications, etc[1]	57	–320
Allowance for expected credit losses on accounts receivables as of December 31	**771**	**1,021**

16:3

1 Whereof reclassification from other non-current receivables of SEK 55 M (–277).

» **Read more in Note 30** Financial instruments.

Age analysis of accounts receivables	**Dec 31, 2020**					Dec 31, 2019				
	Not Due	1–30	31–90	>90	**Total**	Not Due	1–30	31–90	>90	**Total**
Accounts receivables gross	32,788	1,692	557	1,394	**36,431**	35,406	1,281	625	1,433	**38,744**
Allowance for expected credit losses on accounts receivables	–183	–11	–28	–549	**–771**	–285	–19	–52	–664	**–1,021**
B/S **Accounts receivables net**	**32,605**	**1,680**	**529**	**846**	**35,660**	**35,121**	**1,262**	**572**	**768**	**37,723**

16:4

17 INVENTORIES

ACCOUNTING POLICY

Inventories are recognized at the lower of cost and net realizable value.

The cost is established by using the first-in, first-out principle (FIFO) and is based on a standard cost method, including costs for all direct manufacturing expenses and the attributable share of capacity and other manufacturing-related costs. The standard costs are tested regularly and adjustments are made based on current conditions. Manufacturing costs are based on normal capacity utilization which are allocated to inventory while unabsorbed cost due to changes in production volume are recognized in the income statement as incurred. Costs for research and development, selling, administration and financial expenses are not included.

Net realizable value is calculated as the selling price less costs attributable to the sale.

SOURCE OF ESTIMATION UNCERTAINTY AND CRITICAL JUDGMENTS

Write down of inventories

The calculation of net realizable value involves estimation of a future sales price, which is dependent on several parameters, such as market demand, model changes and development of used products prices. Due to the Covid-19 pandemic, a thorough analysis has been conducted during 2020 to consider the uncertainties due to capacity utilization and impact on new and used vehicles estimated net realizable value. A prolongation or worsening of the pandemic could lead to further price pressure, which may give rise to write downs.

Inventories	Dec 31, 2020	Dec 31, 2019
Finished products	26,589	34,368
Production materials etc.	21,036	22,277
B/S Inventories[1]	**47,625**	**56,644**

17:1

1 A reclassification has been made to assets held for sale amounting to SEK 5,755 (5,510) M. » **Read more in Note 3** Acquisitions and divestments of shares and operations.

The total value of inventories, net after write downs, was SEK 47,625 M (56,644) as of December 31, 2020. Inventories recognized as cost of sold products during the period amounted to SEK 244,512 M (311,495).

Change in write down of inventories	2020	2019
Opening balance	**4,303**	**3,926**
Change in write down of inventories charged to income	554	722
Scrapping	–510	–414
Translation differences	–259	109
Reclassifications etc.	–637	–40
Write down of inventories as of December 31	**3,452**	**4,303**

17:2

18 CASH AND CASH EQUIVALENTS

ACCOUNTING POLICY

Cash and cash equivalents include highly liquid interest-bearing securities that are considered easily convertible to cash. These include marketable securities and reverse repurchase agreements, with a date of maturity within three months at the time of investment. Interest-bearing securities with a date of maturity exceeding three months at the time of investment are recognized as marketable securities.

» **Read more in Note 30** Financial instruments, about accounting policies for financial instruments.

Cash and cash equivalents	Dec 31, 2020	Dec 31, 2019
Cash in banks	60,571	49,030
Marketable securities with original duration less than 3 months[1]	2,327	2,925
Time deposits in banks	14,495	9,505
Reverse repurchase agreements[2]	7,812	–
B/S **Cash and cash equivalents**	**85,206**	**61,461**

18:1

1 Additionally the Volvo Group recognized outstanding marketable securities with original duration exceeding 3 months of SEK 213 M (200) in government securities as of December 31, 2020.

2 A reverse repurchase agreement is a financial transaction where one party commits to buy securities from a counterpart with the agreement to sell back the securities at an agreed price at a set future date.

Cash and cash equivalents as of December 31, 2020, include SEK 2.5 billion (2.4) that is not available for use by the Volvo Group and SEK 11.0 billion (9.1) where other limitations exist, mainly cash and cash equivalents in countries where exchange controls or other legal restrictions apply. Therefore, it is not possible to immediately use these cash and cash equivalents in other parts of the Volvo Group, however there is normally no limitation to use them for the Volvo Group's operation in the respective country.

Mortgage bonds to a value of SEK 7.8 billion (0) with an average tenor of 3.1 years has been received as collateral for the outstanding reverse repurchase agreements as of December 31, 2020.

19 EQUITY AND NUMBER OF SHARES

ACCOUNTING POLICY

Earnings per share before dilution is calculated as income for the period, attributable to the owners of AB Volvo, divided by AB Volvo's average number of outstanding shares for the fiscal year. Diluted earnings per share is calculated as income for the period attributable to the owners of AB Volvo, divided by AB Volvo's average number of outstanding shares for the fiscal year. If during the year there were potential shares redeemed or expired, they are also included in the average number of shares used to calculate the earnings per share after dilution.

Due to the extraordinary situation as a result of the Covid-19 pandemic the Annual General Meeting, held on June 18, 2020, resolved that no payment of dividend will be made and that the entire amount available will be carried forward. The Meeting further resolved to adopt the Board of Directors' proposal to reduce the share capital by way of cancellation of the company's approximately 95 million own shares and an increase of the share capital by way of a bonus issue, without any issue of new shares, in order to restore the share capital.

The share capital of the Parent company is divided into two series of shares, A and B. Both series carry the same rights, except that each Series A share carries the right to one vote and each Series B share carries the right to one tenth of a vote. The shares' quota value is SEK 1.26 (1.20). During 2020 AB Volvo converted a total of 8,070,990 Series A shares to Series B shares. Unrestricted equity in the Parent company as of December 31, 2020 amounted to SEK 54,801 M (53,328).

Change in other reserves	Holding of shares at fair value
Opening balance 2020	236
Other changes	–
Remeasurements of holdings of shares in Japanese companies	−6
Remeasurements of holdings of shares in other companies	0
Balance as of December 31, 2020	**230**

19:1

Information regarding number of shares	**Dec 31, 2020**	Dec 31, 2019
Own Series A shares	–	20,728,135
Own Series B shares	–	74,240,001
Total own shares	**–**	**94,968,136**
Own shares in % of total registered shares	–	4.46
Outstanding Series A shares	448,113,346	456,184,336
Outstanding Series B shares	1,585,338,738	1,577,267,748
Total outstanding shares	**2,033,452,084**	**2,033,452,084**
Total registered Series A shares	448,113,346	476,912,471
Total registered Series B shares	1,585,338,738	1,651,507,749
Total registered shares	**2,033,452,084**	**2,128,420,220**
Average number of outstanding shares	2,033,452,084	2,033,405,780

19:2

	Series A shares		Series B shares		Total	
Share capital	**2020**	2019	**2020**	2019	**2020**	2019
Outstanding shares opening balance	456,184,336	457,377,694	1,577,267,748	1,575,536,664	2,033,452,084	2,032,914,358
Allotment to long-term incentive program	–	–	–	537,726	–	537,726
Converting Series A shares to Series B shares	−8,070,990	−1,193,358	8,070,990	1,193,358	–	–
Outstanding shares as of December 31	**448,113,346**	**456,184,336**	**1,585,338,738**	**1,577,267,748**	**2,033,452,084**	**2,033,452,084**

19:3

Information regarding shares	**2020**	2019
Number of outstanding shares, December 31, in millions	2,033	2,033
Average number of shares before dilution in millions	2,033	2,033
Average number of shares after dilution in millions	2,033	2,033
Average share price, SEK	158.23	139.93
Net income attributable to owners of AB Volvo	19,318	35,861
Basic earnings per share, SEK	9.50	17.64
Diluted earnings per share, SEK	9.50	17.64

19:4

20 PROVISIONS FOR POST-EMPLOYMENT BENEFITS

ACCOUNTING POLICY

The Volvo Group's post-employment benefits, such as pensions, health-care and other benefits are mainly settled by means of regular payments to independent authorities or bodies that assume pension obligations and administer pensions through defined contribution plans.

The remaining post-employment benefits are defined benefit plans where the obligations remain within the Volvo Group and are secured by proprietary pension foundations. The Volvo Group's defined benefit plans relate mainly to subsidiaries in the USA and comprise both pensions and other benefits, such as healthcare. Other large-scale defined benefit plans apply to white collar employees in Sweden (mainly through the ITP pension plan) and employees in France, Great Britain and Belgium.

Actuarial calculations are made for all defined benefit plans in order to determine the present value of the obligation for benefits vested by its current and former employees. The actuarial calculations are prepared annually and are based upon actuarial assumptions that are determined at the balance sheet date each year. Changes in the present value of obligations due to revised actuarial assumptions and experience adjustments constitute remeasurements.

Provisions for post-employment benefits in the Volvo Group's balance sheet correspond to the present value of obligations at year-end, less fair value of plan assets. All changes in the net defined liability (asset) are recognized when they occur. Service cost and net interest expense (income) are recognized in the income statement, while remeasurements such as actuarial gains and losses are recognized in other comprehensive income. Special payroll tax is included in the pension liability in pension plans in Sweden and Belgium.

For defined contribution plans, expenses for premiums are recognized in the income statement as incurred.

SOURCE OF ESTIMATION UNCERTAINTY AND CRITICAL JUDGMENTS

Assumptions when calculating post-employment benefits

Provisions and costs for post-employment benefits, mainly pensions and health care benefits, are dependent on actuarial assumptions. The actuarial assumptions and calculations are made separately for each defined benefit plan. The most significant assumptions are discount rate and inflation. Inflation assumptions are based on an evaluation of external market indicators. A sensitivity analysis is included in graph 20:6 and shows the effect on the defined benefit obligations if significant assumptions are changed. There are also other assumptions made such as salary increases, retirement rates, mortality rates, health care cost trends rates and other factors. The salary increase assumptions reflect the historical trend, the near-term and long-term outlook and assumed inflation. Retirement and mortality rates are based primarily on officially available mortality statistics. Healthcare cost trend assumptions are based on historical data as well as the near-term outlook and an assessment of likely long-term trends. The Volvo Group has engaged a global actuary in order to ensure that a professional assessment is made and that assumptions are consistently developed across jurisdictions. The actuarial assumptions are reviewed annually by the Volvo Group and modified when deemed appropriate.

The Covid-19 pandemic has indirectly impacted the net financial position of the defined benefit pension plans via movements on the financial markets. Lower discount rates, following Covid-19 measures taken by central banks, have adversely impacted the obligation, in particular for plans in the USA and Great Britain. Return seeking asset classes have been exceptionally volatile during 2020, impacting the net provision by material amounts during the year, mainly in Sweden and Belgium.

The following tables disclose information about defined benefit plans. The Volvo Group recognizes the difference between the obligations and the plan assets in the balance sheet. The disclosures refer to assumptions applied for actuarial calculations, recognized costs during the financial year and the value of obligations and plan assets at year-end. The tables also include a reconciliation of obligations and plan assets during the year.

Assumptions applied for actuarial calculations	**Dec 31, 2020**	Dec 31, 2019
Sweden		
Discount rate, %[1]	1.45	1.70
Inflation, %	1.75	1.75
Expected salary increase, %	2.40	2.90
Assumed life expectancy on retirement at age 65 (Male/Female)		
Retiring today (member age 65), year	20.9/23.5	20.90/23.5
Retiring in 25 years (member age 40 today), year	22.7/24.6	22.70/24.6
USA		
Discount rate, %[1,2]	0.53-2.42	2.06–3.27
Inflation, %	2.20	2.20
Expected salary increase, %	3.00-3.50	3.00–4.10
Assumed life expectancy on retirement at age 65 (Male/Female)		
Retiring today (member age 65), year	20.5/22.2	20.67/22.44
Retiring in 25 years (member age 40 today), year	22.3/24.0	22.65/24.44
France		
Discount rate, %[1]	0.87	0.70–1.20
Inflation, %	1.50	1.50
Expected salary increase, %	2.50	3.00
Great Britain		
Discount rate, %[1]	1.40	2.05
Inflation, %	2.90	2.75
Expected salary increase, %	0.00	0.00
Assumed life expectancy on retirement at age 65 (Male/Female)		
Retiring today (member age 65), year	22.0/23.7	21.71/23.51
Retiring in 25 years (member age 40 today), year	23.8/26.3	23.97/26.30
Belgium		
Discount rate, %[1]	0.81	1.10
Inflation, %	1.50	1.50
Expected salary increase, %	2.52	2.55

20:1

1 The discount rate for each country is determined by reference to market yields on high quality corporate bonds. In countries where there is no functioning market in such bonds, the market yields on government bonds are used. The discount rate for the Swedish pension obligation is determined by extrapolating current market rates along the yield curve of mortgage bonds.

2 For all plans except three the discount rate used is within the range 1.97–2.42% (2.92–3.27).

Summary of provisions for post-employment benefits	**Dec 31, 2020**	Dec 31, 2019
Obligations	–67,920	–68,335
Fair value of plan assets	51,203	50,010
Net provisions for post-employment benefits	**–16,718**	**–18,325**

20:2

Pension costs	**2020**	2019
Current year service costs	1,558	1,749
Interest costs	1,314	1,602
Interest income	–1,128	–1,378
Past service costs[1]	–710	70
Gain/loss on settlements	–	3
Pension costs for the period, defined benefit plans	**1,034**	**2,045**
Pension costs for defined contribution plans	2,597	2,986
Total pension costs for the period	**3,631**	**5,031**

20:3

1 Past service costs includes a positive effect of SEK 721 M from the announced freeze of two defined benefit plans in the USA, a change of inflation index from RPI to CPI for two defined benefit plans in Great Britian, a freeze of current defined benefit plan in the Netherlands and a curtailment impact in France.

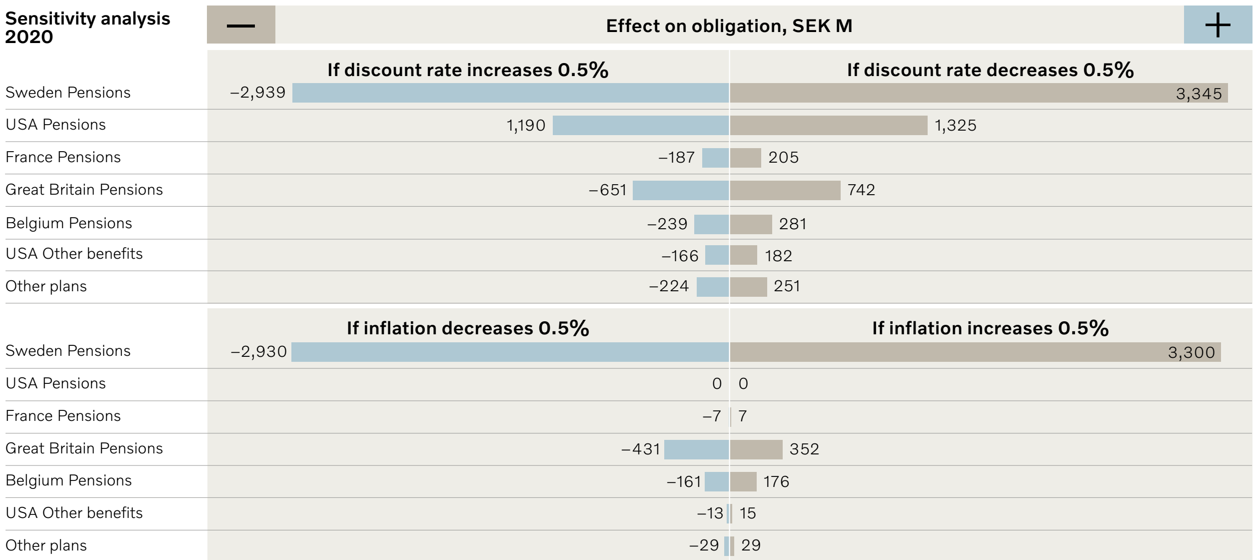
Costs for the period, post-employment benefits other than pensions	**2020**	2019
Current year service costs	86	123
Interest costs	142	187
Interest income	–28	–25
Past service costs	–15	6
Gain/loss on settlements	–	–
Remeasurements	79	30
Total costs for the period	**265**	**322**

20:4

	Sweden Pensions	USA Pensions	France Pensions	Great Britain Pensions	Belgium Pensions	USA Other benefits
Average duration of the obligations, years	23.5	12.3	13.8	18.4	13.6	11.0

20:5

The analysis in graph 20:6 presents the sensitivity of the defined benefit obligations when changes in the applied assumptions for discount rate and inflation are made. The sensitivity analysis is based on a change in an assumption while holding all other assumptions constant. In practice, this is not probable, and changes in some of the assumptions may be correlated. Depending on specific plan and benefit design, the sensitivity effect on the obligation differs for the respective assumptions.



20:6

Obligations in defined benefit plans	Sweden Pensions	USA Pensions	France Pensions	Great Britain Pensions	Belgium Pensions	USA Other benefits	Other plans	Total
Obligations opening balance 2019	**19,047**	**18,772**	**2,328**	**6,791**	**2,939**	**3,508**	**3,874**	**57,260**
Acquisitions, divestments and other changes	–11	35	–2	–	–	0	284	**305**
Current year service costs	734	421	153	2	228	58	276	**1,871**
Interest costs	470	767	47	205	49	144	107	**1,790**
Past service costs	17	43	–11	–	–	0	26	**75**
Settlements	–103	–	–8	–	–	–	1	**–110**
Employee contributions	–	–	–	–	0	28	49	**77**
Remeasurements:								
– Effect of changes in demographic assumptions	–	–110	–14	–64	–	–214	–8	**–409**
– Effect of changes in financial assumptions	3,947	2,319	300	877	364	350	220	**8,377**
– Effect of experience adjustments	333	69	–29	–	85	–16	2	**445**
Exchange rate translation	–	679	35	510	40	135	111	**1,509**
Benefits paid	–470	–1,321	–65	–253	–144	–372	–229	**–2,854**
Obligations as of December 31, 2019	**23,964**	**21,675**	**2,733**	**8,068**	**3,562**	**3,620**	**4,713**	**68,335**
of which								
Funded defined benefit plans	–23,517	–21,816	–19	–8,262	–3,561	–	–2,790	**–59,965**
Acquisitions, divestments and other changes	0	56	0	–4	0	38	–898	**–807**
Current year service costs[1]	431	502	178	1	265	19	248	**1,644**
Interest costs	405	636	32	157	39	103	85	**1,456**
Past service costs	99	–357	–89	–182	–	0	–63	**–592**
Settlements	–	–	–	–	–	0	–3	**–3**
Employee contributions	–	–	–	–	0	30	40	**70**
Remeasurements[2]:								
– Effect of changes in demographic assumptions	–	–135	17	–163	–	–39	3	**–316**
– Effect of changes in financial assumptions	1,524	2,070	4	910	132	306	9	**4,956**
– Effect of experience adjustments	749	–51	–30	–231	17	65	41	**560**
Exchange rate translation	0	–2,711	–109	–752	–148	–436	–241	**–4,396**
Benefits paid	–494	–1,413	–57	–272	–118	–342	–291	**–2,987**
Obligations as of December 31, 2020[3]	**26,677**	**20,273**	**2,680**	**7,533**	**3,750**	**3,363**	**3,644**	**67,920**
of which								
Funded defined benefit plans	–26,073	–19,560	–18	–7,534	–3,749	0	–2,405	**–59,339**

20:7

1 Current year service cost for Sweden includes a positive effect of SEK 604 M from correction of actuarial calculations.

2 Remeasurements for Sweden includes a negative effect of SEK 1,663 M for corrections of actuarial calculations.

3 Obligation as of December 31, 2020 for Sweden includes an increase of SEK 1,059 M related to correction of actuarial calculations.

Fair value of plan assets in funded plans	Sweden Pensions	USA Pensions	France Pensions	Great Britain Pensions	Belgium Pensions	USA Other benefits	Other plans	Total
Plan assets opening balance 2019	**12,048**	**19,270**	**13**	**6,983**	**2,370**	–	**1,643**	**42,327**
Acquisitions, divestments and other changes	0	2	–	0	–	33	289	**323**
Interest income	300	790	0	212	39	–	62	**1,403**
Settlements	–	–	–	–	–	–	0	**0**
Remeasurements	1,407	2,693	0	701	190	–	47	**5,038**
Asset ceiling	–	–	–	–193	–	–	–30	**–223**
Employer contributions	924	–	2	60	174	–	276	**1,437**
Employee contributions	–	–	–	–	0	–28	47	**19**
Exchange rate translation	–	700	0	530	33	0	47	**1,309**
Benefits paid	1	–1,153	–1	–253	–122	–17	–80	**–1,624**
Plan assets as of December 31, 2019	**14,680**	**22,301**	**15**	**8,040**	**2,685**	**–12**	**2,301**	**50,010**
Acquisitions, divestments and other changes	0	45	–	–4	0	49	–169	**–79**
Interest income	250	656	0	162	30	0	58	**1,156**
Settlements	–	–	–	–	–	–	0	**0**
Remeasurements	964	2,062	0	908	104	0	27	**4,065**
Asset ceiling	–	–	–	–749	–	–	–1	**–750**
Employer contributions	1,998	0	0	147	209	39	152	**2,545**
Employee contributions	–	28	–	–	0	263	40	**331**
Exchange rate translation	0	–2,771	–1	–752	–110	–4	–170	**–3,808**
Benefits paid	1	–1,404	–	–272	–114	–302	–175	**–2,266**
Plan assets as of December 31, 2020	**17,892**	**20,917**	**15**	**7,480**	**2,804**	**33**	**2,063**	**51,203**

20:8

Net provisions for post-employment benefits	Sweden Pensions	USA Pensions	France Pensions	Great Britain Pensions	Belgium Pensions	USA Other benefits	Other plans	Total
Net provisions for post-employment benefits as of December 31, 2019	**–9,284**	**626**	**–2,718**	**–28**	**–877**	**–3,632**	**–2,412**	**–18,325**
of which reported as:								
B/S Net pension assets	–	–	–	140	–	1,518	5	**1,663**
B/S Provisions for post-employment benefits	–9,284	626	–2,718	–167	–877	–5,151	–2,417	**–19,988**
Net provisions for post-employment benefits as of December 31, 2020[1]	**–8,784**	**643**	**–2,665**	**–53**	**–947**	**–3,330**	**–1,581**	**–16,718**
of which reported as:								
B/S Net pension assets	–	1,512	–	81	–	120	0	**1,712**
B/S Provisions for post-employment benefits	–8,784	–869	–2,665	–134	–947	–3,449	–1,581	**–18,430**

20:9

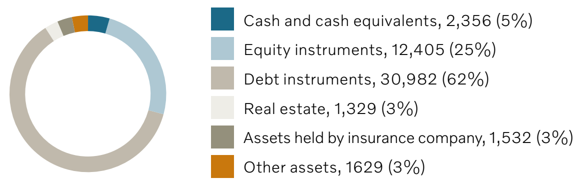
1 A reclassification has been made to asset held for sale of SEK 693 M (72).

» **Read more in Note 3** Acquisitions and divestments of shares and operations.

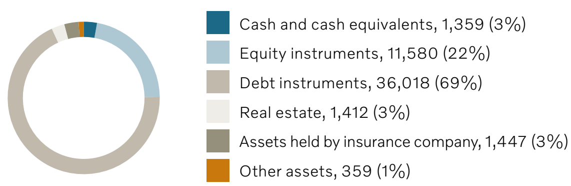
Sweden

The main defined benefit plan in Sweden is the ITP2 plan which is based on final salary. The plan is semi-closed, meaning that only new employees born before 1979 enters the ITP2 solution. The Volvo Group's pension foundation in Sweden was formed in 1996 to secure obligations relating to retirement pensions for white collar workers in Sweden in accordance with the ITP plan. Plan assets amounting to SEK 2,456 M were contributed to the foundation at its formation, corresponding to the value of the pension obligations at that time. Since its formation, net contributions of SEK 6,332 M, whereof SEK 1,998 M during 2020, have been made to the foundation. The plan assets in the Volvo Group's Swedish pension foundation are invested in Swedish and foreign stocks and mutual funds, and in interest-bearing securities and alternative assets, in accordance with a strategic allocation that is determined by the foundation's Board of Directors. As of December 31, 2020, the fair value of the foundation's plan assets amounted to SEK 17,871 M (14,662), of which 45% (47) was invested in equity instruments. At the same date, retirement pension obligations attributable to the ITP plan amounted to SEK 26,048 M (23,492).

Plan assets by category as of December 31, 2019



Plan assets by category as of December 31, 2020[1]



20:10

Fair value of plan assets	Dec 31, 2020	Dec 31, 2019
Cash and cash equivalents	1,357	2,349
With a quoted market price		
Equity instruments	9,400	10,047
Debt instruments	35,358	30,288
Real estate	167	175
Derivatives	–3	–19
Other	500	1,610
With an unquoted market price		
Other	5,397	5,784
Total[1]	**52,176**	**50,233**

20:11

1 Excluding asset ceiling of SEK 973 M (223).

Swedish companies can secure new pension obligations through balance sheet provisions or pension fund contributions. Furthermore, a credit insurance policy must be taken out for the value of the obligations. In addition to benefits relating to retirement pensions, the ITP plan also includes, for example, a collective family pension, which the Volvo Group finances through an insurance policy with the Alecta insurance company. According to an interpretation from the Swedish Financial Reporting Board, this is a multi-employer defined benefit plan. For the fiscal year 2020, the Volvo Group did not have access to information from Alecta that would have enabled this plan to be recognized as a defined benefit plan. Accordingly, the plan has been recognized as a defined contribution plan. The Volvo Group estimates it will pay premiums of about SEK 303 M to Alecta in 2021. The collective consolidation level measures the apportionable assets in relation to the insurance commitment. According to Alecta's consolidation policy for defined benefit pension insurance, the collective consolidation level is normally allowed to vary between 125% and 175%. Alecta's preliminary consolidation ratio amounts to 148% (148). If the consolidation level falls short or exceeds the normal interval, one measure may be to increase the contract price for new subscription or to introduce premium reductions.

The Volvo Group's share of the total saving premiums for ITP2 in Alecta as of December 31, 2020 amounted to 0.18% (0.31) and the share of the total number of active policy holders amounted to 1.78% (1.76).

All employees in Sweden benefit from a jubilee awards plan according to which they receive a certain number of shares after they have rendered 25, 35 and 45 years of services. This plan is accounted for as a share-based payment program, where the fair value of the equity-settled payments is determined at the grant date. No payment from the jubilee awards plan as of year 2020 have been done due to the circumstances under the Covid-19 pandemic and therefore the allotment of the jubilee shares has been postponed to a future occasion.

USA

In the USA, the Volvo Group has tax qualified pension plans, post-retirement medical plans and non-qualified pension plans. The tax qualified pension plans are funded while the other plans are generally unfunded. There are five funded defined benefit plans, whereof three are closed, one is partially closed and one is open to new entrants. All plans are open for future accruals. The Volvo Group's subsidiaries in the USA mainly secure their pension obligations through transfer of funds to pension plans. The US Retirement Trust manages the assets related to the five funded plans. The strategic allocation of plan assets must comply with the investment policy as decided by the Board of Directors of the Trust. All members of the board are nominated by the company although each member is subject to strict regulatory requirements on fiduciary responsibility. At the end of 2020, the total value of pension obligations secured by pension plans of this type amounted to SEK 19,560 M (21,816). At the same point in time, the total value of the plan assets in these plans amounted to SEK 20,917 M (22,301), of which 11% (12) was invested in equity instruments. The regulations for securing pension obligations stipulate certain minimum levels concerning the ratio between the value of the plan assets and the value of the obligations. During 2020, the Volvo Group contributed SEK 0 M (0) to the USA pension plans.

France

In France, the Volvo Group has two types of defined benefit plans, Indemnité de Fin de Carrière (IFC) and jubilee awards plan. The plans are unfunded. The IFC is compulsory in France. The benefits are based on the Collective Bargaining Agreement applicable in the company, on the employee's seniority at retirement date and on the final pay. The benefit payment is due only if employees are working for the company when they retire. The jubilee award plan is an internal agreement and the benefit is based on the employee's seniority career at 20, 30, 35 and 40 years. As of December 31, 2020, the total value of pension obligations amounted to SEK 2,680 M (2,733).

Great Britain

In Great Britain, the Volvo Group has five defined benefit pension plans, which are all funded. The pension funds are set up as separate legal entities, which are governed by a professional trustee for all schemes. All plans are closed to new entrants and closed for future accruals to existing members.

The allocation of plan assets must comply with the investment strategy agreed between the company and the professional trustee. For three of the plans, if a net surplus is recognized in the balance sheet when the pension scheme runs-off, the Volvo Group has an unconditional right to the surplus of that plan or plans. For two plans this is not strictly legally the case and therefore an asset ceiling is applied.

At the end of 2020, the total value of pension obligations amounted to SEK 7,533M (8,068). The total value of the plan assets in these plans amounted to SEK 7,480M (8,040).

During 2020, the Volvo Group has made extra contributions to the pension plans in Great Britain in the amount of SEK 147M (60).

Belgium

In Belgium, the Volvo Group has four traditional defined benefit pension plans based on final salary, whereof one is closed to new entrants. All plans are open for future accruals. Two are funded via own pension fund and two are funded via the group insurance product referred to in Belgium as Branch 21. Benefits are paid as a lump sum at retirement. There is also a local profit sharing program whereby any pay-outs are contributed to a defined contribution pension plan managed by the own pension fund or through a group insurance. All defined contribution pension plans in Belgium have a statutory minimum return guarantee and are therefore accounted for as defined benefit plan. The strategic asset allocation of plan assets must comply with the investment policy as decided by the Board of Directors of the pension fund. All board members of the pension fund are nominated by the company. At the end of 2020, the total value of pension obligations amounted to SEK 3,750 M (3,562). At the same point in time the plan assets of these plans amounted to SEK 2,804 M (2,685). During 2020 the Volvo Group contributed SEK 209 M (174) to the Belgium pension plans.

Investment strategy and risk management

The Volvo Group manages the allocation and investment of pension plan assets with the purpose of meeting the long term objectives. The main objectives are to meet present and future benefit obligations, provide sufficient liquidity to meet such payment requirements and to provide a total return that maximizes the ratio of the plan assets in relation to the plan liabilities by maximizing return on the assets at an appropriate level of risk. The final investment decision often resides with the local trustee, but the investment policy for all plans ensures that the risks in the investment portfolios are well diversified. The primary risk mitigating activity in the long run is to close defined benefit plans to new entrants or to future accruals for existing members and replace with defined contribution plans when and where possible. The risks related to already accrued pension obligations, e.g. longevity and inflation, as well as buy out premiums and matching strategies are monitored on an ongoing basis in order to further limit the Volvo Group's exposure where and when possible.

In the last couple of years, some of the defined benefit plans have been closed to new entrants and replaced by defined contribution plans in order to reduce risk for the Volvo Group.

In Sweden, the minimum funding target is decided by PRI Pensionsgaranti. This is mandatory in order to stay in the system and get insurance for the pension liability. The contributions usually represent one year's new accrued benefits plus any shortfall towards the minimum funding target unless there is a surplus according to local scheme valuation principles.

In the USA, the minimum funding target is decided by the company in order to avoid penalties, keep flexibility and avoid extensive filing with the Internal Revenue Service and participants. The minimum contributions usually represent one year's accrued benefits plus a seventh of any deficit unless a scheme is showing a surplus according to local scheme valuation principles.

In Great Britain, there is no minimum funding ratio. There is a regulatory requirement for each scheme to perform triennial valuations whereby any scheme showing a deficit must develop a recovery plan that returns the scheme to a fully funded basis within a reasonable timeframe. The recovery plan shall be agreed with the company and submitted to the regulator for approval.

In Belgium, the minimum funding level is regulated by law and monitored by the financial supervisory authority, FSMA. The framework for the minimum funding requirement is based on a discount rate, which is based on the expected return of the plan assets. The pension fund must be fully funded on this basis at all times. The contribution policy of the pension fund is designed to provide stability in contributions over the duration of the plan.

In 2021, the Volvo Group estimates to transfer an amount of SEK 0.5–1.5 billion to pension plans.

21 OTHER PROVISIONS

ACCOUNTING POLICY

Provisions are recognized in the balance sheet when a legal or constructive obligation exists as a result from a past event, it is probable that an outflow of resources will be required to settle the obligation and the amount can be reliably estimated. When these criteria are not met, a contingent liability may be recognized.

Provisions for product warranty
Provisions for product warranty are recognized as cost of sales and include contractual warranty and campaign warranty. Provisions for contractual warranty are recognized when the products are sold. Provision for campaigns in connection with specific quality problems are recognized when the campaign is decided.

Provisions for technical goodwill
Technical goodwill is coverage in excess of contractual warranty or campaigns which is accepted as a matter of policy or normal practice in order to maintain a good business relation with the customer. The provisions for technical goodwill are determined based on historical statistics for customers where a constructive obligation exists.

Provisions for extended coverage
An extended coverage is a product insurance sold to a customer to cover a product according to specific conditions for an agreed period as an additional insurance to the factory contractual warranty. The provision is intended to cover the risk that the expected cost of providing services under the extended coverage contract exceed the expected revenue.

Provisions in insurance operations
Volvo Group has a captive insurance company and the provisions in insurance operations are related to third party claims addressed to companies within the Volvo Group. The claims reserve also includes a provision for unreported losses based on past experience. The unearned premium reserve is reported as an accrued expense within other current liabilities.

Provisions for restructuring costs
A provision for decided restructuring measures is recognized when a detailed plan for the implementation of the measures is complete and when this plan is communicated to those who are affected. A provision and costs for termination benefits as a result of a voluntary termination program is recognized when the employee accepts the offer. Normally restructuring costs are included in other operating income and expenses.

Provisions for residual value risks
Residual value risks are the risks that the Volvo Group in the future would have to dispose used vehicles at a loss if the price development of these products is worse than expected when the contracts were entered. The residual value risks pertain to operating lease contracts and sales transactions with residual value commitments (buybacks and tradebacks) where the Volvo Group has a residual value commitment. The majority of these contracts are recognized as assets under operating leases or as right of return asset in the balance sheet. During the period, the depreciable amount is adjusted through the income statement to correspond to estimated future net realizable value to continuously reflect potential residual value risks at the end of the contract period.

» **Read more in Note 13** Tangible assets about residual value risks.

Residual value commitments that are independent from the sales transaction are not recognized as assets under operating leases or as right of return in the balance sheet, hence the potential residual value risks related to these contracts are recognized as provisions. To the extent the residual value exposure does not meet the definition of a provision, the gross exposure is reported as a contingent liability.

» **Read more in Note 24** Contingent liabilities and contingent assets.

Provisions for service contracts
Service contracts offer the customer preventive maintenance according to an agreed service plan. The provision is intended to cover the risk that the expected cost of providing services and repairs under the service contract exceeds the expected revenue.

SOURCE OF ESTIMATION UNCERTAINTY AND CRITICAL JUDGMENTS

The uncertainties about the amount or timing of outflows vary for different kind of provisions. Regarding provisions for product warranty, technical goodwill, extended coverage, residual value risks and service contracts, the provisions are based on historical statistics and estimated future costs, why the provided amount has a high correlation with the outflow of resources. Regarding provisions for disputes, like tax and legal disputes, the uncertainty is higher.

Provisions for product warranty
Warranty provisions are estimated with consideration of historical statistics with regard to known changes in warranty claims, warranty periods, the average time-lag between faults occurring until claims are received by the company and anticipated changes in quality indexes. The actual outcome of product warranties may deviate from the expected outcome and materially affect the warranty costs and provisions in future periods. Refunds from suppliers, that decrease the Volvo Group's warranty costs, are recognized to the extent these are considered to be certain.

Provisions for legal proceedings
The Volvo Group regularly reviews the development of significant outstanding legal disputes in which the Volvo Group companies are parties, both regarding civil law and tax disputes, in order to assess the need for provisions and contingent liabilities in the financial statements. Among the factors that the Volvo Group considers in making decisions on provisions and contingent liabilities are the nature of the dispute, the amount claimed, the progress of the case, the opinions of legal and other advisers, experience in similar cases, and any decision of the Volvo Group's management as to how the Volvo Group intends to handle the dispute. The actual outcome of a legal dispute may deviate from the expected outcome of the dispute. The difference between actual and expected outcome of a dispute might materially affect future financial statements, with an adverse impact upon the Volvo Group's operating income, financial position and liquidity.

Provisions for legal disputes are included within other provisions in table 21:1.

» **Read more in Note 24** Contingent liabilities and contingent assets.

	Carrying value as of Dec 31, 2019	Provisions	Reversals	Utilizations	Acquired and divested companies	Translation differences	Other reclassi-fications	**Carrying value as of Dec 31, 2020[2]**	Of which due within 12 months	Of which due after 12 months
Provisions for product warranty[1]	17,526	7,657	–1,471	–8,648	–1	–954	280	14,389	7,351	7,038
Provisions for technical goodwill	1,236	597	–57	–461	–	–208	–56	1,051	534	517
Provisions for extended coverage	619	412	–125	–357	–	–63	31	517	242	275
Provisions in insurance operations	720	173	–165	–29	–	–76	0	623	–	623
Provisions for restructuring costs[3]	170	3,425	–1,026	–745	–	–38	0	1,786	1,656	130
Provisions for residual value risks	559	1,532	–563	–942	–	–117	25	494	456	38
Provisions for service contracts	416	533	–299	–341	–	–40	134	403	177	226
Other provisions	5,246	3,836	–1,148	–2,586	–11	–515	–14	4,808	2,737	2,071
B/S **Total**	**26,492**	**18,165**	**–4,854**	**–14,109**	**–12**	**–2,011**	**400**	**24,071**	**13,153**	**10,918**

21:1

1 Including a provision for emission control component in 2018. For more information see below.

2 A reclassification has been made to liabilities held for sale of SEK 956 M (1,333), **Read more in Note 3** Acquisitions and divestments of shares and operations.

3 Including a provision of SEK 3.2 billion related to cost reduction measures. For more information see below.

The Volvo Group has detected that an emissions control component used in certain markets and models, may degrade more quickly than expected, affecting the vehicles emission performance negatively. The Volvo Group made a provision of SEK 7 billion impacting the operating income in 2018, relating to the estimated costs to address the issue. Negative cash flow effects started in 2019 and will gradually ramp up in the coming years. The Volvo Group will continuously assess the size of the provision as the matter develops.

To adjust its operations to lower demand due to the Covid-19 pandemic, the Volvo Group reduced the white-collar workforce globally during 2020. A provision for restructuring charges of SEK 3,200 M was recognized in the second quarter whereof SEK 992 M was released in the fourth quarter.

Other provisions mainly includes provisions for legal disputes, provisions for externally issued credit guarantees and other provisions, unless separately specified and commented in the table and text.

Long-term provisions as above are expected to be settled within 2 to 3 years.

22 LIABILITIES

ACCOUNTING POLICY

Loans are valued at amortized cost using the effective interest rate method. A hybrid bond issued by the Volvo Group is classified as debt in the Volvo Group's financial reporting as it constitutes a contractual obligation to make interest payments and repay the nominal amount of the debt to the holder of the instrument.

» Read more in Note 30 Financial instruments for accounting policies related to financial instruments.

Non-current liabilities

The tables below disclose the Volvo Group's non-current liabilities with the largest loans listed by currency. Loans in the Volvo Group's subsidiaries are mainly denominated in local currencies through Volvo Group Treasury which minimizes the currency exposure in the individual companies. Volvo Group Treasury uses various derivatives to facilitate lending and borrowing in different currencies without increasing the risk for the Volvo Group.

» Read more in Note 4 Goals and policies in financial risk management.

Non-current bond loans and other loans Currency/start year/maturity	**Actual interest rate Dec 31, 2020, %**	**Effective interest rate Dec 31, 2020, %**	**Dec 31, 2020**	Dec 31, 2019
Bond loans				
EUR 2012–2020/2022–2078[1]	0.00–4.79	0.00–4.79	34,969	39,373
SEK 2018-2020/2022-2024	0.40–2.31	0.40–2.31	25,741	23,462
NOK 2019-2020/2022-2024	1.21–2.28	1.22–2.30	3,580	1,587
HKD 2019/2024	2.31	2.31	765	866
USD 2019/2029	2.96	2.96	409	466
JPY 2020/2023	0.70	0.70	927	–
B/S **Total bond loans**[2,3]			**66,391**	**65,754**
Other loans				
USD 2014-2020/2022-2024	0.49–3.03	0.71–3.25	6,522	12,936
EUR 2012-2020/2022-2026	0.00–2.34	0.00–2.34	6,760	6,919
CAD 2019/2022	1.43	1.44	640	1,925
MXN 2020/2025	5.24–5.91	5.37–6.07	742	594
JPY 2019-2020/2023-2024	0.37–1.24	0.37–1.24	1,585	903
BRL 2013-2015/2023-2028	3.00–12.32	3.00–12.32	3,500	2,814
AUD 2018-2020/2022-2024	0.92–1.52	0.92–1.53	315	448
CNY 2018-2020/2022-2023	2.70–4.99	3.20–4.99	2,409	1,497
Loans in other currencies			1,451	972
Lease liabilities[4]			4,434	5,334
Revaluation of outstanding derivatives to SEK[5]			416	1,521
B/S **Total other loans**[2,3]			**28,775**	**35,862**

22:1

Other non-current liabilities	**Dec 31, 2020**	Dec 31, 2019
Deferred leasing income[6]	4,647	5,123
Residual value liabilities[6]	8,540	9,829
Deferred service revenue[6]	12,268	13,049
Refund liabilities[6]	1,042	1,265
Advances from customers[6]	1,583	2,215
Outstanding interest and currency risk derivatives[5]	643	440
Other liabilities	2,701	4,390
B/S **Total other liabilities**	**31,424**	**36,311**

22:2

1 Including the remaining tranche of the hybrid bond of EUR 0.6 billion with a first call in 2023 and final maturity in 2078.

2 Loans to finance the credit portfolio in Financial Services amounted to SEK 50,332 M (50,142) in bond loans and SEK 23,149 M (28,538) in other loans.

3 Non-current loans of SEK 6,638 M (12,521) were secured by assets pledged. » Read more in Note 23 Assets pledged.

4 Lease liabilities of SEK 377 M (0) have been reclassified to liabilities held for sale, » Read more in Note 3 Acquisitions and divestments of shares and operations.

5 » Read more in Note 30 Financial instruments, table 30:1 regarding non-current part of outstanding interest and currency risk derivatives.

6 » Read more in Note 7 Revenue regarding contract and refund liabilities, and sales with residual value commitments.

Maturity Year	Bond loans and other loans	Not utilized non-current credit facilities
2022	34,868	5,502
2023	32,263	1,000
2024	11,610	15,056
2025	7,482	20,075
2026	1,455	–
2027 or later	7,489	–
Total	**95,166**	**41,633**

22:3

» Read more in Note 14 Leasing, table 14:4 for maturities of non-current lease liabilities.

» Read more in Note 15 Customer-financing receivables, table 15:2 for maturities of non-current customer-financing receivables.

The Volvo Group issued a hybrid bond in 2014, amounting to EUR 1.5 billion with an original maturity of 61.6 years, in order to further strengthen the Volvo Group's balance sheet and prolong the maturity structure of the debt portfolio. The first tranche of this bond, amounting to EUR 0.9 billion, was repaid on June 10, 2020. The predominant part of loans that mature in 2022 is an effect of the Volvo Group's normal business cycle, with shorter duration in the Financial Services portfolio compared to Industrial Operations.

Granted but not utilized credit facilities consist of stand-by facilities for loans. A fee is charged for granted credit facilities and recognized in the income statement within other financial income and expenses. Due to the uncertainty caused by the Covid-19 pandemic some credit facilities were renegotiated in early 2020, prolonging the maturity, see table 22:3.

» Read more in Note 9 Other financial income and expenses.

Current liabilities

Current bond loans and other loans	**Dec 31, 2020**	Dec 31, 2019
Bond loans	30,904	31,759
B/S **Total bond loans[1,2]**	**30,904**	**31,759**
Other loans	25,572	22,254
Lease liabilities[3]	1,552	1,755
Revaluation of outstanding derivatives to SEK[4]	230	367
B/S **Total other loans[1,2]**	**27,354**	**24,377**

22:4

1 Loans to finance the credit portfolio in Financial Services amounted to SEK 30,904M (31,759) in bond loans and SEK 19,945 (20,772) in other loans.

2 Current loans of SEK 7,645 M (5,516) were secured by assets pledged. » Read more in Note 23 Assets pledged.

3 Lease liabilities of SEK 124 M (0) have been reclassified to liabilities held for sale, » Read more in Note 3 Acquisitions and divestments of shares and operations.

4 » Read more in Note 30 Financial instruments, table 30:1 regarding current part of outstanding interest and currency risk derivatives.

Other current loans include current maturities of non-current loans of SEK 16,943 M (15,512).

Other current liabilities	**Dec 31, 2020**	Dec 31, 2019
Advances from customers[1]	6,427	5,493
Wages, salaries and withholding taxes	11,697	11,957
VAT liabilities	4,295	3,358
Accrued expenses for dealer bonuses and rebates[1]	5,247	6,647
Other accrued expenses	10,138	11,867
Deferred leasing income[1]	3,116	3,036
Deferred service revenue[1]	3,558	3,371
Other deferred income[1]	1,266	1,184
Residual value liabilities[1]	4,705	4,775
Refund liabilities[1]	501	461
Other financial liabilities	279	155
Interest and currency risk derivatives[2]	66	140
Other liabilities	5,274	5,059
B/S **Total other liabilities**	**56,569**	**57,502**

22:5

1 » Read more in Note 7 Revenue regarding contract and refund liabilities, and sales with residual value commitments.

2 » Read more in Note 30 Financial instruments, table 30:1 regarding current part of outstanding interest and currency risk derivatives.

Table 22:5 presents the Volvo Group's other current liabilities. In addition to this, non-interest-bearing current liabilities also include trade payables of SEK 59,611 M (66,866) and current tax liabilities of SEK 4,599 M (3,493). A reclassification has been made from trade payables to liabilities held for sale of SEK 4,796 M (4,774), » Read more in Note 3 Acquisitions and divestments of shares and operations.

Non-interest-bearing current liabilities amounted to SEK 130,890 M (138,267), or 69% (71) of the Volvo Group's total current liabilities.

23 ASSETS PLEDGED

Assets pledged	**Dec 31, 2020**	Dec 31, 2019
Property, plant and equipment mortgages	48	70
Assets under operating leases	181	317
Customer-financing receivables	14,731	20,834
Total assets pledged	**14,960**	**21,220**

23:1

Non-current and current loans of SEK 14,283 M (18,037) were secured by assets pledged to an amount of SEK 14,960 M (21,220).

Under the terms of asset-backed securitizations, SEK 14,135 M (17,766) of securities have been issued tied to US-based loans, secured by customer-financing receivables, SEK 14,731 M (20,834), recognized on the balance sheet with trucks and construction equipment assets as collaterals, whereof SEK 4,991 M (12,876) were signed in 2020.

» Read more in Note 22 Liabilities.

24 CONTINGENT LIABILITIES AND CONTINGENT ASSETS

ACCOUNTING POLICY

A contingent liability is recognized for a possible obligation, for which it is not yet confirmed that a present obligation exists that could lead to an outflow of resources. Alternatively, there is a present obligation that does not meet the definitions of a provision or a liability as it is not probable that an outflow of resources will be required to settle the obligation or a sufficiently reliable estimate of the amount of the obligation cannot be made.

A contingent asset is a possible asset that arises from past events that will be confirmed by uncertain future events not wholly within the control of the Volvo Group. A contingent asset is disclosed where an inflow of economic benefits is probable.

Contingent liabilities	Dec 31, 2020	Dec 31, 2019
Credit guarantees issued for customers and others	4,419	2,944
Tax claims	4,008	4,653
Residual value commitments	795	1,118
Other contingent liabilities	4,610	5,017
Total contingent liabilities	**13,832**	**13,732**

24:1

Total contingent liabilities at December 31, 2020, amounted to SEK 13,832 M (13,732).

Credit guarantees issued amounted to SEK 4,419 M (2,944). The recognized amount for credit guarantees corresponds to the gross exposure and has not been reduced by the value of counter guarantees received or other collaterals such as the right to repossess the products. The value of counter guarantees and other collaterals reducing the exposure is dependent on the development of used products prices and on the possibility to repossess the products.

A major part of the credit guarantees pertains to the credit guarantees related to Chinese dealers and retail customers within Construction Equipment. The increase compared to last year is mainly an effect of higher sales in Construction Equipment in China.

Tax claims amounted to SEK 4,008 M (4,653) and pertain to charges against the Volvo Group for which the criteria for recognizing a tax liability or a provision were not met. Global companies such as the Volvo Group are occasionally involved in tax processes of varying scope and in various stages. Volvo Group regularly assesses these tax processes. When it is probable that additional taxes must be paid and the outcome can be reasonably estimated, the required provision is made. Out of total tax claims, SEK 1.2 billion (1.8) is related to a transfer price audit in Brazil and SEK 1.0 billion (1.2) to a custom duties audit in India. The decrease in Brazil is due to exchange rate effects.

Residual value commitments amounted to SEK 795 M (1,118) and were attributable to sales transactions with residual value commitments (buybacks and tradebacks) that are independent from the sales transaction and therefore not recognized as assets in the balance sheet. The amount corresponds to the gross exposure and has not been reduced by the estimated net selling price of used products taken as collaterals. To the extent the used products pertaining to those transactions are expected to be disposed at a loss, a provision for residual value risk is recognized.

» **Read more in Note 21** Other provisions about provisions for residual value risks.

Other contingent liabilities amounted to SEK 4,610 M (5,017) and include for example bid and performance clauses and legal proceedings.

Legal proceedings

In January 2011, the Volvo Group and a number of other companies in the truck industry became part of an investigation by the European Commission regarding a possible violation of EU antitrust rules. The Volvo Group co-operated fully with the European Commission in the investigation. In July 2016, the Volvo Group reached a settlement with the European Commission in the investigation. Following the adoption of the European Commission's settlement decision, the Volvo Group has received and will be defending itself against numerous private damages claims brought by customers and other third parties alleging that they suffered loss by reason of the conduct covered in the decision. The claims are being brought in various countries by claimants either acting individually or as part of a wider group or class of claimants. Further claims are likely to be commenced. At this stage it is not possible to make a reliable estimate of any liability that could arise from any such proceedings. An adverse outcome or outcomes of some or all of the litigation, depending on the nature and extent of such outcomes, may have a material impact on the Volvo Group's financial results.

The Volvo Group is also involved in a number of legal proceedings other than those described above. The Volvo Group's assessment is that such other legal proceedings in aggregate are not likely to entail any risk of having a material effect on the Volvo Group's financial position.

Detected premature degradation of emissions control component

The Volvo Group has detected that an emissions control component used in certain markets and models, may degrade more quickly than expected, affecting the vehicles emission performance negatively. The Volvo Group has made a provision that will be continuously assessed as the matter develops.

» **Read more in Note 21** Other provisions.

Total contingent assets at December 31, 2020 amounted to SEK 1,252 M (0) and is related to a tax credit in Brazil.

25 TRANSACTIONS WITH RELATED PARTIES

ACCOUNTING POLICY

The Volvo Group engages in transactions with some of its related parties, such as associated companies and joint ventures. The transactions arise in the ordinary course of business and are conducted on commercial terms and market prices. They mainly consist of sales of vehicles, parts, equipment and services as well as purchases of parts, engines and vehicles for resale. Transactions between AB Volvo and its subsidiaries have been eliminated in the Group and are not disclosed in this note. Transactions with the Board of Directors and the Group Executive Board consist of remunerations, which are disclosed in note 27 Personnel.

» **Read more in Note 5** Investments in joint ventures, associated companies and other shares and participations.

» **Read more in Corporate Governance Report** about Board of Directors and Group Executive Board.

The Volvo Group's transactions with related parties are presented in table 25:1 and 25:2.

	Sales of goods, services and other income		Purchases of goods, services and other expense	
	2020	2019	**2020**	2019
Associated companies	1,547	2,569	53	142
Joint ventures	1,837	1,709	726	891

25:1

	Receivables		Payables	
	Dec 31, 2020	Dec 31, 2019	**Dec 31, 2020**	Dec 31, 2019
Associated companies	242	595	24	73
Joint ventures	330	214	71	38

25:2

26 GOVERNMENT GRANTS

ACCOUNTING POLICY

Government grants are financial grants from governmental or supranational bodies that are received in exchange for fulfillment of certain conditions by the Volvo Group. The financial grants are recognized in the financial statement when there is a reasonable assurance that the conditions will be complied with and that the grants will be received.

Government grants related to assets are presented in the balance sheet either as deferred income or as a deduction of the carrying amount of the related assets. Government grants related to income are reported as a deferred income in the balance sheet and recognized in the income statement to match the related costs. If the costs are incurred before the grants have been received, but there is an agreement that grants will be received, grants are recognized in the income statement to match the related costs.

In 2020, government grants of SEK 3,473 M (746) were received, and SEK 3,107 M (890) were recognized in the income statement.

During the Covid-19 pandemic, grants related to various governmental short-term layoff programs were received by the Volvo Group. Out of the total amount of grants received, SEK 2,672 M were received in relation to the short-term layoff programs whereof SEK 487 M will be repaid to the authorities in Sweden. SEK 2,248 M were recognized in the income statement as a deduction of the related costs for personnel. The grants were mainly received from the authorities in Sweden, France and Canada.

» **Read more in note 27** Personnel, table 27:4 and 27:5.

Government grants also includes tax credits of SEK 351 M (411) related to product development, which were primarily received in France and in the United States. Other grants were mainly received from Swedish, Chinese and US governmental organizations and from the European Commission.

27 PERSONNEL

ACCOUNTING POLICY

Incentive programs
The Volvo Group has a long-term and a short-term incentive program that is accounted for in accordance with IAS 19 Employee benefits. During the vesting period, the incentive program is recognized as an expense and as a short-term liability.

Policy for remuneration to senior executives, approved by the Annual General Meeting on 18 June 2020
The Annual General Meeting 2020 decided upon the following policy on remuneration and other terms of employment for the members of the Volvo Group Executive Board.

These guidelines are forward-looking, i.e. they are applicable to remuneration agreed, and amendments to remuneration already agreed, after the proposed adoption of these guidelines by the 2020 annual general meeting. These guidelines do not apply to any remuneration decided or approved by the general meeting. Any new share-based incentive plans will, where applicable, be resolved by the general meeting, but no such plan is currently proposed.

The guidelines' promotion of the Volvo Group's business strategy, long-term interests and sustainability
It is a prerequisite for the successful implementation of the Volvo Group's business strategy and safeguarding of its long-term interests, including its sustainability, that the Group can recruit, retain and develop top executives. These guidelines enable AB Volvo to offer Executives a competitive total remuneration. More information regarding the Volvo Group's business strategy is available in the Volvo Group Annual and Sustainability Report.

Types of remuneration
Volvo Group remuneration to Executives shall consist of the following components: base salary, short-term and long-term variable incentives, pension benefits and other benefits.

Short-term incentives may, for the President & CEO, amount to a maximum of 100 per cent of the base salary and, for other Executives, a maximum of 80 per cent of the base salary.

Long-term incentives may, for the President & CEO, amount to a maximum of 100 per cent of the base salary and, for other Executives, a maximum of 80 per cent of the base salary. The current long-term incentive plan for the Group's top executives, including the Executives, was introduced in connection with the 2016 annual general meeting. The objective of the program is to align the interests of the top executives with those of the Group shareholders. The program does that by a combination of a performance based award and a requirement to purchase and hold AB Volvo shares. The program is funded on an annual basis by an award, measured against performance criteria established by the Board of Directors. The after tax portion of this payment must be immediately invested in AB Volvo shares which must be held for a minimum of three years. In this way, the top executives are rewarded for the performance of the Group each year, and will have a vested interest over the longer term in changes in the value of the shares. At the end of the three year period, top executives may sell their shares, if they meet the requirement for owning shares valued at two years of the pre-tax base salary for the President & CEO and one year of the pre-tax base salary for the other Executives. The holding requirements for the Executives shall cease upon termination of an Executive's employment, and the Board of Directors may grant such other exceptions to the requirements as the Board deems appropriate.

Further cash remuneration may be awarded in extraordinary circumstances, provided that such extraordinary arrangements are limited in time and only made on an individual basis, either for the purpose of recruiting or retaining Executives, or as remuneration for extraordinary performance beyond the individual's ordinary tasks. Such remuneration may not exceed an amount corresponding to 100 per cent of the annual base salary. Any resolution on such remuneration shall be made by the Board of Directors based on a proposal from the Remuneration Committee.

For the President & CEO, pension benefits shall be granted on the basis of a defined contribution plan except where law or collective agreement would require a defined benefit pension. The pensionable salary shall include base salary and short-term incentives. The pension contributions for the President & CEO attributable to the annual base salary shall amount to not more than 35 per cent of the base salary, and contributions attributable to short term incentives shall not exceed the corresponding proportion.

Other benefits may include, for example, life insurance, medical and health insurance, and company cars. Premiums and other costs relating to such benefits may amount to not more than 3 per cent of the annual base salary for the President & CEO.

For other Executives, pension benefits shall be granted on the basis of a defined contribution except where law or collective agreement require a defined benefit pension. The pensionable salary shall include base salary and short-term incentives. The pension contributions for other Executives attributable to the annual base salary shall amount to not more than 40 per cent of the base salary and contributions attributable to short term incentives shall not exceed the corresponding proportion.

Other benefits may include, for example, life insurance, medical and health insurance, and company cars. Premiums and other costs relating to such benefits may amount to not more than 10 per cent of the annual base salary for other Executives.

Remuneration for Executives that reside outside Sweden or reside in Sweden but having a material connection to or having been residing in a country other than Sweden may be duly adjusted to comply with mandatory rules or local practice, taking into account, to the extent possible, the overall purpose of these guidelines.

In addition to remuneration set out above, Executives who relocate for the purposes of the position or who work in other multiple countries may also receive such remuneration and benefits as are reasonable to reflect the special circumstances associated with such arrangements, taking into account the overall purpose of these guidelines and alignment with the general policies and practices within the Volvo Group applicable to cross border work.

Termination of employment
Upon termination of an Executive's employment, the notice period may not exceed twelve months. Base salary during the notice period and severance pay may not together exceed an amount corresponding to the base salary for two years.

Executives that reside outside Sweden or reside in Sweden but having a material connection to or having been residing in a country other than Sweden may be offered notice periods for termination and severance payment as are reasonable to reflect the special circumstances, taking into account the overall purpose of these guidelines and alignment with the general policies and practices within the Volvo Group.

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Criteria for awarding variable cash remuneration, etc.
Short-term and long-term incentives shall be linked to predetermined and measurable criteria. The criteria – which for example may relate to EBIT, cash flow, return on capital employed or similar ratios, or sustainability targets – shall be devised to promote the Volvo Group's strategy and long-term value creation and strengthen the link between achieved performance targets and reward. The criteria for short-term and long-term incentives shall be determined by the Board of Directors annually. The satisfaction of the criteria shall be measured over periods of one year each.

To which extent the criteria for awarding variable remuneration has been satisfied shall be determined when the relevant measurement period has ended. The Board of Directors is responsible for the determination of variable remuneration to all Executives.

Claw-back and adjustments
Executives participating in the Volvo Group's current short-term and long-term incentive plans are obligated, in certain circumstances and for specified periods of time, to repay, partially or in its entirety, variable incentive awards already paid if payments have been made by mistake or been based on intentionally falsified data or in the event of material restatement of the Volvo Group's financial results. Furthermore, the Board of Directors may decide on adjustments of pay-out under the incentive plans (before payment has been made) in case of extraordinary circumstances or to adjust for unforeseen one-timers.

Salary and employment conditions for employees
In the preparation of the Board of Directors' proposal for these remuneration guidelines, the Board has considered that the various benefits offered to the Executives need to be aligned with the general structures applicable for employees of AB Volvo at levels that are competitive in the market. Thus, salary and employment conditions for other AB Volvo employees have been taken into account by including information thereon in the Remuneration Committee's and the Board of Directors' basis of decision when evaluating whether the guidelines and the limitations set out herein are appropriate.

The decision-making process to determine, review and implement the guidelines
The Board of Directors has established a Remuneration Committee. The Committee's tasks include preparing the Board of Directors' decision to propose guidelines for executive remuneration. The Board of Directors shall prepare a proposal for new guidelines at least every fourth year and submit it to the general meeting. The guidelines shall be in force until new guidelines are adopted by the general meeting. The Remuneration Committee shall also monitor and evaluate plans for variable remuneration for Executives, the application of the guidelines for executive remuneration as well as the current remuneration structures and compensation levels in the Group. The members of the Remuneration Committee are independent of AB Volvo and its executive management. The President & CEO and other members of the executive management do not participate in the Board of Directors' processing of and resolutions regarding remuneration-related matters in so far as they are affected by such matters.

Derogation from the guidelines
The Board of Directors may temporarily resolve to derogate from the guidelines, in whole or in part, if in a specific case there is special cause for the derogation and a derogation is necessary to serve the Volvo Group's long-term interests, including its sustainability, or to ensure the Group's financial viability. As set out above, the Remuneration Committee's tasks include preparing the Board of Directors' resolutions in remuneration-related matters. This includes any resolutions to derogate from the guidelines.

Description of material changes to the guidelines
Due to new legislation passed in 2019, the guidelines for executive remuneration decided by the 2020 annual general meeting are more detailed than before. In addition, the short-term and long-term incentives may be linked to EBIT, cash flow, return on capital employed or similar ratios, or sustainability targets, instead of EBIT and cash flow only.

Fees paid to the Board of Directors
According to a resolution adopted at the Annual General Meeting 2020, fees to the Board of Directors appointed at the Annual General Meeting for the period until the close of the Annual General Meeting 2021 remain unchanged meaning that the Chairman of the Board should be awarded SEK 3,600,000 (3,600,000) and each of the other members SEK 1,060,000 (1,060,000) with exception of the President and CEO of AB Volvo, who does not receive a director's fee. In addition, SEK 380,000 (380,000) should be awarded to the Chairman of the Audit Committee and SEK 175,000 (175,000) to each of the other members of the Audit Committee, and SEK 160,000 (160,000) to the Chairman of the Remuneration Committee and SEK 115,000 (115,000) to each of the other members of the Remuneration Committee. During 2020, the Board decided to discontinue its Technology and Business Transformation Committee. Further, the Board members decided on a 20 per cent reduction of their Board and Committee remuneration from the Annual General Meeting 2020 to the Annual General Meeting 2021. For more information, please refer to the Corporate Governance Report.

Remuneration to the Group Executive Board SEK	Fixed remuneration		Variable remuneration			
	Fixed salary	Other benefits[1]	Short-term incentives	Long-term incentives	Other remunerations[2]	Pension premiums
President and CEO	14,517,854	251,546	10,720,811	10,720,811	–	7,714,902
Deputy CEO	7,871,465	91,810	4,647,870	4,647,870	–	4,049,242
Other members of the Group Executive Board[3]	78,342,719	20,133,762	43,423,320	43,423,320	3,000,000	29,721,602
Total 2020	**100,732,038**	**20,477,118**	**58,792,001**	**58,792,001**	**3,000,000**	**41,485,746**
Total 2019	**97,876,492**	**21,439,999**	**69,818,155**	**–**	**3,000,000**	**35,909,751**

27:1

1 Other benefits mainly pertain to company cars, housing and costs for a change of tax status of an expatriate

2 Other remunerations include compensation in connection with employment in the Group.

3 The Group Executive Board comprised, excluding the CEO and Deputy CEO, of 13 (12) members at the end of the year.

Terms of employment and remuneration to the CEO

Fixed salary, short-term and long-term incentives

The President and CEO is entitled to a remuneration consisting of a fixed annual salary and short-term and long-term incentives. During the financial year 2020, the short-term and long-term incentives are based on adjusted operating income margin and cash flow for the Volvo Group. The short-term and long-term incentives, each, amounts to a maximum of 100% of the annual base salary.

For the financial year 2020, Martin Lundstedt received a fixed salary including vacation payment of SEK 14,517,854 (14,924,697) and a short-term incentive of SEK 10,720,811 (13,066,469). The short-term incentive was 70.3% (88.8) of the annual base salary. The fixed salary for 2020 is lower than previous year as Martin Lundstedt decided to lower his salary during a part of the year due to the extraordinary situation as a result of the Covid-19 pandemic. Other benefits, mainly pertaining to car and housing, amounted to SEK 251,546 (369,530). Housing benefits were discontinued as of July.

Martin Lundstedt was also participating in the long-term incentive program decided by the Board of Directors in 2020. During the financial year the outcome of the long-term incentive program amounted to SEK 10,720,811 (–), which was 70.3% (–) of the base salary. The full net amount shall be invested in Volvo B shares. There is to be no pay-out of the amount if the Annual Meeting held in 2021 decides not to distribute any dividends to the shareholders for 2020. The Annual General Meeting held in June 2020 resolved that no payment of dividend would be made and thus there was no pay-out regarding the long-term incentive program for 2019.

Pensions

The President and CEO is covered both by pension benefits provided under collective bargain agreements and by the Volvo Management Pension (VMP) and Volvo Executive Pension (VEP) plans. Both VMP and VEP are defined contribution plans. The pensionable salary consists of the annual salary, vacation payment and a calculated short-term variable pay. The premium for the VMP plan is SEK 30,000 per year plus 20% of pensionable salary over 30 income base amounts and the premium for the VEP plan is 10% of pensionable salary. There are no commitments other than the payment of the premiums. In addition to the collective bargain agreement (ITP), the disability pension is 25% of salary between 7.5 price base amounts and 20 income base amounts, 37.5% of salary between 20–30 income base amounts and 50% of base salary above 30 income base amounts. The right to disability pension is conditional to employment and will cease upon termination of employment.

The President and CEO is also covered by Volvo Företagspension, a defined contribution plan for additional retirement benefits. For 2020, the premium amounted to SEK 8,568 (8,280) for the full year.

Total pension premiums for Martin Lundstedt amounted to SEK 7,714,902 (6,916,015) in 2020.

Severance payments

Martin Lundstedt has a 12 months notice period upon termination by AB Volvo and a 6 months notice period upon termination on his own initiative. If terminated by the company, Martin Lundstedt is entitled to a severance payment equivalent to 12 months' salary. In the event of new employment during the severance period, the severance pay is reduced with an amount equal to 100% of the income from the new employment.

Terms of employment and remuneration to the Deputy CEO

Fixed salary, short-term and long-term incentives

The Deputy CEO is entitled to a remuneration consisting of a fixed annual salary and short-term and long-term incentives. During the financial year 2020, the short-term and long-term incentives are based on adjusted operating income margin and cash flow for the Volvo Group. In 2020, short-term and long-term incentives, could each amount to a maximum of 80% of the annual base salary.

For the financial year 2020, Jan Gurander received a fixed salary including vacation payment of SEK 7,871,465 (8,159,410) and a short-term incentive of SEK 4,647,870 (5,695,955). The short-term incentive was 56.3% (69.0) of the annual base salary. The fixed salary for 2020 is lower than previous year as Jan Gurander decided to lower his salary during a part of the year due to the extraordinary situation as a result of the Covid-19 pandemic. Other benefits, mainly pertaining to car benefit, amounted to SEK 91,810 (144,928).

Jan Gurander also participated in the long-term incentive program decided by the Board of Directors in 2020. The long-term incentive amounted to SEK 4,647,870 (-), which was 56.3% (0) of the annual base salary and the full net amount shall be invested in Volvo B shares. There is to be no pay-out of the amount if the Annual Meeting held in 2021 decides not to distribute any dividends to the shareholders for 2020. The Annual General Meeting held in June 2020 resolved that no payment of dividend would be made and thus there was no pay-out regarding the long-term incentive program as of year 2019.

Pensions

The Deputy CEO is covered both by pension benefits provided under collective bargain agreements and by the Volvo Management Pension (VMP) and Volvo Executive Pension (VEP) plans. Both VMP and VEP are defined contribution plans. The pensionable salary consists of the annual salary, vacation payment and a calculated short-term variable pay. The premium for the VMP plan is SEK 30,000 per year plus 20% of pensionable salary over 30 income base amounts and the premium for the VEP plan is 10% of pensionable salary. There are no commitments other than the payment of the premiums. In addition to the collective bargain agreement (ITP), the disability pension is 25% of salary between 7.5 price base amounts and 20 income base amounts, 37.5% of salary between 20–30 income base amounts and 50% of salary between 30–50 income base amounts. The right to disability pension is conditional to employment and will cease upon termination of employment.

The Deputy CEO is also covered by Volvo Företagspension, a defined contribution plan for additional retirement benefits. For 2020, the premium amounted to SEK 8,568 (8,280) for the full year.

Total pension premiums for Jan Gurander amounted to SEK 4,049,242 (3,514,535) in 2020.

Severance payments

Jan Gurander has a 12 months notice period upon termination by AB Volvo and a 6 months notice period upon termination on his own initiative. If terminated by the company, Jan Gurander is entitled to a severance payment equivalent to 12 months' salary.

Remuneration to the Group Executive Board

Fixed salary, short-term and long-term incentives

Members of the Group Executive Board are entitled to a remuneration of a fixed annual salary and short-term and long-term incentives. During the financial year 2020, the short-term and long-term incentives are based on adjusted operating income margin and cash flow for the Volvo Group. In 2020, short-term and long-term incentives, for Group Executive Board members excluding the CEO, could each amount to a maximum of 80% of the annual base salary.

For the financial year 2020, fixed salaries amounted to SEK 78,342,719 (74,792,385) and a compensation in connection with employment in the Group amounted to SEK 3,000,000 (3,000,000). Short-term incentive

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amounted to SEK 43,423,320 (51,055,732) for the Group Executive Board members excluding the CEO and Deputy CEO. Short-term incentive was in average 56.3% (69.0) of the annual base salary. The fixed salary for 2020 is lower than previous year as all Group Executive Board Members decided to lower their salary during part of the year due to the extraordinary situation as a result of the Covid-19 pandemic. The Group Executive Board comprised, excluding the CEO and Deputy CEO, of 13 (12) members at the beginning and 13 (12) at the end of the year. Other benefits, including company cars, housing and costs for a change of tax status of an expatriate, amounted to SEK 20,133,762 (20,925,541).

The Group Executive Board also participated in the long-term incentive program decided by the Board of Directors in 2020. The long-term incentive amounted to SEK 43,423,320 (–) for the Group Executive Board members excluding the CEO and Deputy CEO, which was 56.3% (–) of the annual base salaries and the full net amount shall be invested in Volvo B shares. There is to be no pay-out of the amount if the Annual Meeting held in 2021 decides not to distribute any dividends to the shareholders for 2020. The Annual General Meeting held in June 2020 resolved that no payment of dividend would be made and thus there was no pay-out regarding the long-term incentive program as of year 2019.

Pensions

Group Executive Board members enrolled in the Swedish pension plan are also covered by a defined contribution plan, Volvo Executive Pension (VEP) plan with pension premium payments at the longest to the age of 65 years. The premium is 10% of pensionable salary. As a complement to the collective bargaining agreement regarding occupational pension, members of the Group Executive Board enrolled in the Swedish pensions plan and who are born before 1979 are also covered by a defined contribution pension plan, Volvo Management Pension (VMP). The premium is SEK 30,000 per year plus 20% of pensionable salary over 30 income base amounts. The pensionable salary consists of the annual salary, vacation payment and a calculated short-term variable pay.

Pension premiums for the Group Executive Board, excluding CEO and Deputy CEO amounted to SEK 29,721,602 (25,479,200) in 2020.

Severance payments

The employment contracts for Group Executive Board members contain rules governing severance payments when the company terminates the employment. For Executives resident in Sweden, the notice period upon termination by the company shall not exceed 12 months and the notice period upon termination by the Executive shall not exceed 6 months. In addition, in the event of termination by the company, the Executive is entitled to a severance payment equivalent to maximum of 12 months' salary.

Executives resident outside Sweden or resident in Sweden but having a material connection to or having been resident in a country other than Sweden may be offered notice periods for termination and severance payment that are competitive in the country where the Executives are or have been resident or to which the Executives have a material connection, preferably solutions comparable to the solutions applied to Executives resident in Sweden.

Volvo Group's total cost for remuneration and benefits to the Group Executive Board

The total cost for remuneration and benefits to the Group Executive Board amounted to SEK 345 M (375) and pertained to fixed salary, short-term and long-term incentives, other benefits and pensions. It also included social fees on salaries and benefits, special payroll tax and additional costs for other benefits.

Long-term incentive programs

Long-term incentive program valid from 2016

The Board of Directors have in 2016 approved a long-term cash-based incentive program comprising the top 300 Executives in the Volvo Group. A prerequisite for participation in the program is that the participants shall undertake to invest the annual net (after tax) payout amounts under the plan in Volvo B-shares and to hold those shares for at least three years.

Long-term incentive may, as regards the President & CEO, amount to a maximum of 100% of the fixed salary and, as regards other Executives, a maximum of 80% of the fixed salary. There will however be no payout under the long-term incentive program if the Annual General Meeting that is held in the year following the performance year, decides not to distribute any dividends to the shareholders.

Average number of employees	2020		2019	
	Number of employees	of which women, %	Number of employees	of which women, %
AB Volvo				
Sweden	301	51	325	54
Subsidiaries				
Sweden	20,150	23	20,267	22
Western Europe (excl. Sweden)	21,037	17	21,864	17
Eastern Europe	6,754	20	7,103	21
North America	15,875	20	17,880	20
South America	5,736	17	5,865	17
Asia	17,429	14	17,724	14
Other countries	2,292	20	2,702	18
Group total	**89,573**	**19**	**93,731**	**18**

27:2

Board members[1] and other senior executives	2020		2019	
	Number at year-end	of which women, %	Number at year-end	of which women, %
AB Volvo				
Board members[1]	11	36	10	40
CEO, Deputy CEO and other senior executives	15	27	14	29
Volvo Group				
Board members[1]	573	23	517	25
Presidents and other senior executives	613	26	591	26

27:3

1 Excluding deputy Board members.

Wages, salaries and other remunerations SEK M	2020 Board and Presidents[4]	2020 of which variable salaries	2020 Other employees[4]	2019 Board and Presidents	2019 of which variable salaries	2019 Other employees
AB Volvo[1]	62.5	28.8	338.0	51.4	21.1	420.0
Subsidiaries	770.7	139.9	39,715.6	912.3	193.9	47,216.7
Group total	**833.2**	**168.7**	**40,053.6**	**963.7**	**215.0**	**47,636.7**

27:4

Wages, salaries and other remunerations and social costs SEK M	2020 Wages, salaries remuneration[4]	2020 Social costs	2020 Pension costs	2019 Wages, salaries remuneration	2019 Social costs	2019 Pension costs
AB Volvo[2]	400.5	120.4	123.5	471.4	143.5	184.7
Subsidiaries	40,486.3	9,150.0	3,507.1	48,129.0	10,416.1	4,846.3
Group total[3]	**40,886.7**	**9,270.3**	**3,630.7**	**48,600.4**	**10,559.6**	**5,031.0**

27:5

1 Including current and former Board members, President & CEO, Deputy CEO and Executive Vice Presidents.

2 The parent company's pension costs, pertaining to Board members and Presidents are disclosed in note 3 Administrative expenses in the annual report of the parent company.

3 Of the Volvo Group's pension costs, SEK 92 M (94) pertain to Board members and Presidents, including current and former Board members, Presidents, Deputy CEO and Executive Vice Presidents. The Volvo Group's outstanding pension obligations to these individuals amount to SEK 609 M (670). The cost for non-monetary benefits in the Volvo Group amounted to SEK 2,853 M (3,336) of which SEK 41 M (54) pertained to Board members and Presidents. The cost for non-monetary benefits in the parent company amounted to SEK 9.0 M (11.9) of which SEK 0.1 M (0.6) to Board members and President.

4 Including compensation from authorities, mainly related to short-term layoff programs, of SEK 2,248 M and salary reduction, due to the extraordinary situation following the Covid-19 pandemic.

28 FEES TO THE AUDITORS

Fees to the auditors	2020	2019
Deloitte		
– Audit fees	105	108
whereof to Deloitte AB	*30*	*29*
– Audit-related fees	7	6
whereof to Deloitte AB	*2*	*3*
– Tax advisory services	2	1
whereof to Deloitte AB	–	–
– Other fees	7	4
whereof to Deloitte AB	–	*1*
Total	**121**	**119**
Audit fees to others	3	2
Volvo Group Total	**124**	**121**

28:1

The audit assignment involves review of the Annual report and financial accounting and the administration by the Board and the President. Audit-related assignments mean quality assurance services required by enactment, articles of association, regulations or agreement. The amount includes the fee for reviewing the half-year report. Tax services include both tax consultancy and tax compliance services. All other tasks are defined as other.

29 CASH FLOW

ACCOUNTING POLICY

Cash flow analysis

The cash flow statement is prepared in accordance with the indirect method. The cash flows of foreign group companies are translated at average rates. Changes in group structure, acquisitions and divestments are recognized gross, excluding cash and cash equivalents, and are included in cash flow from investing activities, in the items Acquired operations and Divested operations.

» **Read more in Note 18** Cash and cash equivalents.

Other non-cash items	2020	2019
Allowance for expected credit losses on accounts receivables/customer-financing receivables	1,725	962
Capital gains/losses on divested operations[1]	–25	–1,590
Unrealized exchange rate gains/losses on accounts receivables and payables	50	–76
Unrealized exchange rate gains/losses on other operating assets and liabilities	–270	119
Provision for profit sharing program	87	550
Provision for incentive programs	1,053	1,860
Gains/losses on disposals of in-/tangible assets	55	–634
Gains/losses on divestments of shares and participations[2]	43	–222
Income from investments in joint ventures	–1,751	–1,860
Service cost related to pensions	1,645	1,911
Deferred sales with residual value commitments	–3,137	–3,903
Provision for restructuring	1,685	–
Other changes	57	114
Total other non-cash items	**1,217**	**–2,769**

29:1

1 In 2019 Volvo Group divested the majority of the shares in WirelessCar with a capital gain of SEK 1.6 billion.
2 In 2019 Volvo Group divested all shares in Terratech AB with a capital gain of SEK 199 M.

» **Read more in Note 3** Acquisitions and divestment of shares and operations, about gain/loss from divestments.

Changes in loans 2020		Cash flows		Non-cash items			
	December 31, 2019	New borrowings	Repayment of borrowings	Reclassifications[1]	Unrealized currency effects	Currency translation	December 31, 2020
Current bond loans and other loans	56,135	66,452	–115,109	55,091	4,133	–8,445	58,258
Non–current bond loans and other loans	101,616	63,614	–5,128	–55,676	–1,104	–8,155	95,166
Interest and currency risk derivatives	–1,328	–	–	–	–4,169	–	–5,496
Realized derivatives	–	–	–895	–	–	–	–
Other	–	–1,612[2]	–	–	–	–	–
Cash flow impact from changes in loans		**128,453**	**–121,132**	**–584**			

Changes in loans 2019			Cash flows		Non-cash items			
	December 31, 2018	Transition effect IFRS 16[3]	New borrowings	Repayment of borrowings	Reclassifications[1]	Unrealized currency effects	Currency translation	December 31, 2019
Current bond loans and other loans	48,646	1,525	29,967	–61,166	35,174	–706	2,694	56,135
Non-current bond loans and other loans	87,210	4,684	49,498	–7,871	–35,182	748	2,528	101,616
Interest and currency risk derivatives	–2,966	–	–	–	–	1,639	–	–1,328
Realized derivatives	–	–	–	946	–	–	–	–
Other	–	–	–1,913[2]	–121	–	–	–	–
Cash flow impact from changes in loans			**77,553**	**–68,212**	**–7**			

29:2

1 A reclassification of SEK 584 M (7)has been made from current and non-current other loans to liabilities held for sale.
2 During 2020, new lease liabilities of SEK 1.6 billion (1.9) were adjusted as non-cash items.
3 The opening balance for 2019 is restated due to the implementation of IFRS 16.

Net borrowings increased by SEK 7.3 billion (9.3) mainly as an effect to safeguard liquidity for the Volvo Group.

Syndications were performed in Financial Services to an amount of SEK 6.8 billion (11.4). All syndications impacted cash flow this year.

» **Read more in Note 22** Liabilities regarding Current loans and Non-current loans.

» **Read more in Board of Directors report** about Cash flow statement and Financial position.

30 FINANCIAL INSTRUMENTS

ACCOUNTING POLICY

Purchases and sales of financial assets and liabilities are recognized on the transaction date. Transaction expenses are included in the assets' fair value, except in cases in which the change in value is recognized in the income statement. The transaction costs that arise in conjunction with the admission of financial liabilities are amortized over the term of the loan as financial cost.

A financial asset is derecognized from the balance sheet at maturity and when all significant risks and benefits related to the asset have been transferred to a third party.

The fair value of financial assets is determined based on valid market prices, when available. If market prices are unavailable, the fair value is determined for each asset through the use of various measurement techniques.

The fair value of financial instruments is classified based on the degree that market values have been utilized when measuring fair value. The majority of financial instruments measured at fair value held by Volvo Group is classified as level 2. The valuation of level 2 instruments is based on market conditions using quoted market data existing at each balance sheet date. The basis for the interest is the zero-coupon-curve in each currency which is used to calculate the present value of all the estimated future cash flows. For forward exchange contracts the basis is the forward premium based on current spot rate for each currency and future date. The fair value is then discounted based on the forward rates as per the balance sheet date. Shares and participations are classified as level 1 for listed shares and level 3 for non-listed shares. Call options are classified as level 3 and are based on the Black & Scholes option pricing formula.

Financial assets measured at amortized cost

Customer-financing receivables are held as part of a business model whose objective is to collect contractual cash flows. The contractual cash flows are solely payments of principal and interest and are valued at amortized cost in accordance with the effective interest method. In this category the Volvo Group also includes accounts receivables and holding of shares in non-listed companies for which a fair value cannot reasonably be determined. The carrying value for financial assets measured at amortized cost has been analyzed and compared with an estimated fair value. The carrying value is a reasonable approximation of the fair value.

» **Read more in Note 5** Investments in joint ventures, associated companies and other shares and participations.

» **Read more in Note 15** Customer-financing receivables.

» **Read more in Note 16** Receivables.

Financial assets measured at fair value through other comprehensive income

In this category the Volvo Group includes holding of shares in listed companies as the shares are not held for trading. Changes in fair value is measured through other comprehensive income and amounted to SEK –8 M (48).

» **Read more in Note 5** Investments in joint ventures, associated companies and other shares and participations.

Financial assets and liabilities measured at fair value through the income statement

Volvo Group's financial assets and liabilities held for trading are recognized at fair value through the income statement. As presented in table 30:1, these instruments are derivatives, used for hedging interest and currency risks and marketable securities, further presented in note 18 Cash and cash equivalents.

Derivatives used for hedging interest rate exposure in the customer-financing portfolio within Financial Services as well as the debt portfolio in Industrial Operations are included in this section. Unrealized gains and losses from fluctuations in the fair value of the financial instruments are recognized in other financial income and expenses. The Volvo Group intends to hold these derivatives to maturity, which is why, over time, the market valuation will be offset by the interest-rate fixing on borrowing and lending in Financial Services, and thus not affect net income or cash flow.

Financial instruments used for hedging currency risks arising from future firm commercial cash flows are also recognized in this section. Realized result and unrealized revaluation of derivatives are recognized in other financial income and expenses to be able to net all internal flows before entering into external derivatives to hedge future currency risk. When hedging future cash flows for specific orders the classification in the income statement is decided on a case by case basis. In 2020, gains and losses from derivatives hedging currency risks for specific orders of SEK –47 M (–35) have been recognized in operating income and SEK 63 M (–54) in other financial income and expenses.

» **Read more in Note 9** Other financial income and expenses.

Hedge Accounting is not applied by the Volvo Group.

Information regarding carrying amounts and fair values

In table 30:1, carrying amounts are compared with fair values for all of the Volvo Group's financial instruments.

»

Carrying amounts and fair values on financial instruments SEK M		Dec 31, 2020 Carrying value	Dec 31, 2020 Fair value	Dec 31, 2019 Carrying value	Dec 31, 2019 Fair value
Assets					
Financial assets measured at fair value through the income statement[1]					
Interest and currency risk derivatives[2]	Note 16	6,049	6,049	2,015	2,015
Other derivatives[3]		564	564	564	564
B/S Marketable securities	Note 18	213	213	200	200
		6,826	6,826	2,779	2,779
Financial assets measured at fair value through other comprehensive income					
Holding of shares in listed companies[1]	Note 5	–	–	–	–
Financial assets measured at amortized cost					
B/S Accounts receivables	Note 16	35,660	35,660	37,723	37,723
Customer-financing receivables	Note 15	128,531	128,531	147,127	147,127
Holding of shares in non-listed companies[1]	Note 5	276	276	158	158
Other interest-bearing receivables	Note 16	402	402	1,504	1,504
		164,870	164,870	186,512	186,512
B/S **Cash and cash equivalents**	Note 18	85,206	85,206	61,461	61,461
Liabilities	Note 22				
Financial liabilities measured at fair value through the income statement					
Interest and currency risk derivatives[1,4]		1,356	1,356	2,468	2,468
Financial liabilities measured at amortized cost[5]					
Non-current bond loans and other loans		94,750	97,024	100,096	101,737
Current bond loans and other loans		58,027	58,188	55,768	55,822
B/S Trade Payables		59,611	59,611	66,866	66,866
		212,388	214,823	222,730	224,425

30:1

1 All derivatives and marketable securities are classified as level 2, shares in listed companies are classified as level 1 and shares in non-listed companies are classified as level 3. A reclassification has been made to assets held for sale by SEK 537 M (544), related to shares in listed companies.

2 The Volvo Group's gross exposure from derivatives reported as assets is reduced by 87% (89) by netting agreements and cash deposits to SEK 758 M (230).

3 The input data used in the valuation model for calculating the fair value has not changed during 2020.

4 The Volvo Group's derivatives reported as liabilities is reduced by 64% (88) by netting agreements and cash deposits to SEK 492 M (285).

5 In the Volvo Group balance sheet, financial liabilities include loan-related derivatives amounting to SEK –647 M (–1,888). The credit risk is included in the fair value of loans.

» **Read more in Note 4** Goals and policies in financial risk management.

Derecognition of financial assets

The Volvo Group is involved in discounting activities to reduce financial risks. An evaluation is performed to establish whether substantially all the risks and rewards have been transferred to an external party when entering into an agreement. The Volvo Group's intention is not to be involved in discounting activities if not substantially all the risks and rewards can be transferred to an external party. As of December 31, 2020, there were no transferred financial assets in the Volvo Group that did not fulfill the requirements for derecognition.

Financial assets for which substantially all risks and rewards have been transferred are derecognized from the Volvo Group's balance sheet. Involvement in these assets is reflected in the Volvo Group's balance sheet as part of the external credit guarantees. They are recognized at fair value as provisions in the balance sheet and amounted to SEK 0.1 billion (0.1).

The Volvo Group's maximum loss exposure is considered being the total recourse relating to transferred assets that are part of the recognized credit guarantees, i.e. the total amount the Volvo Group would have to pay in case of default of the customers. The likelihood for all customers going into default at the same time is considered to be low. The gross exposure for the Volvo Group amounted to SEK 4.4 billion (2.9) related to credit guarantees issued for customers and others and is part of the Volvo Group's contingent liabilities. This amount has not been reduced by the value of counter guarantees received or other collateral such as the right to repossess products.

» **Read more in Note 21** Other provisions.

» **Read more in Note 24** Contingent Liabilities.

Gains, losses, interest income and interest expenses from financial instruments

Table 30:3 shows how gains and losses, as well as interest income and interest expenses have affected income after financial items in the Volvo Group divided by the different categories of financial instruments.

In the table below outstanding derivatives hedging currency and interest rate risks are presented.

Outstanding derivative instruments	**Dec 31, 2020**		Dec 31, 2019	
SEK M	Nominal amount	Carrying value	Nominal amount	Carrying value
Interest-rate swaps				
– receivable position	126,549	5,448	87,221	948
– payable position	167,422	–1,214	194,399	–2,329
Forward and futures				
– receivable position	248	–	–	–
– payable position	666	–73	669	–19
Foreign exchange derivatives				
– receivable position	25,779	596	27,589	1,061
– payable position	7,255	–67	16,695	–118
Options purchased				
– receivable position	10,409	2	428	5
– payable position	–	–	–	–
Options written				
– receivable position	–	–	–	–
– payable position	205	–2	405	–2
Total		**4,691**		**–453**

30:2

Recognized in operating income	2020			2019		
SEK M	Gain/ Loss	Interest income	Interest expense	Gain/ Loss	Interest income	Interest expense
Financial assets and liabilities at fair value through the income statement						
Currency risk derivatives[1,2]	–47	–	–	–35	–	–
Financial assets measured at amortized cost						
Accounts receivables/trade payables[3]	–102	–	–	–502	–	–
Customer-financing receivables[4]	267	7,208	–	423	7,765	–
Shares and participations in listed companies[5]	20	–	–	18	–	–
Shares and participations in non-listed companies[5]	14	–	–	267	–	–
Financial liabilities measured at amortized cost[6]	–	–	–2,992	–	–	–3,424
Impact on operating income	**152**	**7,208**	**–2,992**	**171**	**7,765**	**–3,424**

Recognized in net financial items[7,8]	2020			2019		
SEK M	Gain/ Loss	Interest income	Interest expense	Gain/ Loss	Interest income	Interest expense
Financial assets and liabilities at fair value through the income statement						
Marketable securities	–28	1	–	17	4	–
Interest and currency rate risk derivatives[1,2]	7,473	–1	–1,246	–3,848	11	–1,483
Financial assets measured at amortized cost						
Cash and Cash equivalents	–	299	–	–	306	–
Financial liabilities measured at amortized cost	–8,051	–	192	2,853	–	189
Impact on net financial items[7,8]	**–606**	**299**	**–1,055**	**–978**	**321**	**–1,294**

30:3

1 Accrued and realized interest related to financial assets and liabilities measured at fair value through the income statement is included in the amounts for gains and losses.

2 The Volvo Group uses forward contracts and currency options to hedge the value of future cash flows in foreign currency. Both unrealized and realized result of currency risk contracts is included in the table.

3 Information regarding changes in allowance for expected credit losses on accounts receivables is provided in note 16 Receivables and note 8 Other operating income and expenses.

4 The amount includes gains/losses due to derecognition of assets where SEK 177 M (333) is related to the sale of customer-financing receivables and SEK 91 M (90) is related to early buy-out revenue. Information regarding changes in allowance for expected credit losses on customer-financing receivables is provided in note 15 Customer-financing receivables and note 8 Other operating income and expenses.

5 Changes in fair value on shares and participations in listed companies through other comprehensive income amounted to SEK –8 M (48).

6 Interest expenses attributable to financial liabilities measured at amortized cost recognized in operating income include interest expenses for financing operating lease activities, which are not classified as financial instruments.

7 In gain/loss, interest income and expenses related to financial instruments recognized in net financial items, SEK –606 M (–978) was recognized in other financial income and expenses.

8 Interest expenses attributable to pensions reported in net financial items of SEK 294 M (379) are not included in this table.

Read more in Note 4 Goals and policies in financial risk management.

Read more in Note 5 Investments in joint ventures, associated companies and other shares and participations.

Read more in Note 9 Other financial income and expenses.

31 CHANGES IN VOLVO GROUP FINANCIAL REPORTING 2020

New accounting policies

As of January 1, 2020, the Volvo Group has changed the classification of certain costs related to commercial customer commitments, which now are recognized as Selling expenses instead of as Cost of sales. This has caused a shift between the lines in the income statement of the Industrial Operations as well as the Volvo Group, while Financial Services is not affected. As a consequence, Cost of sales has decreased and Selling expenses has increased by the corresponding amount, with no impact on the operating income.

The reclassification has been done retrospectively and the financial information for 2019 has been restated to facilitate the comparability between the years.

CONSOLIDATED INCOME STATEMENT

	Industrial Operations			Volvo Group		
SEK M	Previously reported 2019	Restatement	After restatement 2019	Previously reported 2019	Restatement	After restatement 2019
Net sales	**418,361**	**–**	**418,361**	431,980	**–**	**431,980**
Cost of sales	–319,055	1,292	–317,763	–326,895	1,292	–325,603
Gross income	**99,306**	**1,292**	**100,598**	**105,085**	**1,292**	**106,377**
Research and development expenses	–18,539	–	–18,539	–18,539	–	–18,539
Selling expenses	–30,483	–1,292	–31,775	–33,037	–1,292	–34,329
Administrative expenses	–5,887	–	–5,887	–5,901	–	–5,901
Other operating income and expenses	230	–	230	–221	–	–221
Income/loss from investments in joint ventures and associated companies	1,859	–	1,859	1,859	–	1,859
Income from other investments	285	–	285	285	–	285
Operating income	**46,771**	**–**	**46,771**	**49,531**	**–**	**49,531**
Interest income and similar credits	320	–	320	320	–	320
Interest expenses and similar charges	–1,673	–	–1,673	–1,674	–	–1,674
Other financial income and expenses	–1,346	–	–1,346	–1,345	–	–1,345
Income after financial items	**44,071**	**–**	**44,071**	**46,832**	**–**	**46,832**
Income taxes	–9,650	–	–9,650	–10,337	–	–10,337
Income for the period	**34,422**	**–**	**34,422**	**36,495**	**–**	**36,495**

31:1

PARENT COMPANY

PARENT COMPANY AB VOLVO

Corporate registration number 556012-5790.
The amounts within parentheses refer to the preceding year, 2019.

Board of Directors' report

AB Volvo is the parent company of the Volvo Group and its operations comprise of the Volvo Group's headquarters with staff together with some corporate functions. AB Volvo has been affected by the situation caused by the Covid-19 pandemic. To reduce the number of redundancies the company has applied for, and received, government grants and the employees have been on short-term layoff, completely or partially, during parts of the financial year 2020. Group contributions of SEK 1,020 M (25,792) has been received during the financial year. Due to the receiving of government grants no group contributions has been given for 2020.

Income from investments in Volvo Group companies include dividends amounting to SEK 1,128 M (7,509).

The carrying value of shares and participations in Volvo Group companies amounted to SEK 71,857 M (72,272), of which SEK 70,554 M (71,084) pertained to shares in wholly owned subsidiaries. The corresponding shareholders' equity in the subsidiaries (including equity in untaxed reserves but excluding non-controlling interests) amounted to SEK 144,701 M (139,883).

Investments in joint ventures and associated companies amounted to SEK 8,938 M (8,989). In the consolidated accounts for the Volvo Group these are accounted for according to the equity method. The equity portion in joint ventures and associated companies pertaining to AB Volvo amounted to SEK 10,177 M (10,400).

Financial net debt amounted to SEK 7,565 M (32,160).

AB Volvo's risk capital (equity plus untaxed reserves) amounted to SEK 74,700 M (73,220) corresponding to 90% (60) of total assets.

INCOME STATEMENT

SEK M		**2020**	2019
Net sales	Note 2	**327**	**362**
Cost of sales	Note 2	–327	–362
Gross income		**0**	**0**
Administrative expenses	Note 2, 3	–1,185	–1,332
Other operating income and expenses	Note 4	128	–52
Operating income[1]		**–1,057**	**–1,384**
Income from investments in Group companies	Note 5	413	6,167
Income from investments in joint ventures and associated companies	Note 6	1,058	451
Income from other investments	Note 7	–1	0
Interest income and similar credits		0	1
Interest expenses and similar charges	Note 8	–587	–834
Other financial income and expenses	Note 9	–19	–22
Income after financial items		**–193**	**4,379**
Appropriations	Note 10	1,020	21,792
Income taxes	Note 11	653	–4,162
Income for the period		**1,480**	**22,009**

OTHER COMPREHENSIVE INCOME

Income for the period	**1,480**	**22,009**
Other comprehensive income, net of income taxes	**–**	**–**
Total comprehensive income for the period	**1,480**	**22,009**

1 The comparative information has been restated, for more information, please see note 1.

BALANCE SHEET			
SEK M		**Dec 31, 2020**	Dec 31, 2019
Assets			
Non-current assets			
Tangible assets	Note 12	7	7
Financial assets			
Shares and participations in Group companies	Note 13	71,857	72,272
Investments in joint ventures and associated companies	Note 13	8,946	8,997
Other shares and participations	Note 13	1	1
Deferred tax assets	Note 11	298	207
Total non-current assets		**81,109**	**81,484**
Current assets			
Current receivables			
Receivables Group companies		1,735	39,191
Other receivables	Note 14	85	360
Total current assets		**1,820**	**39,551**
Total assets		**82,929**	**121,035**
Equity and liabilities			
Equity			
Restricted equity			
Share capital		2,562	2,554
Statutory reserve		7,337	7,337
Unrestricted equity			
Non-restricted reserves		390	390
Retained earnings		52,930	30,929
Income for the period		1,480	22,009
Total equity		**64,699**	**63,219**
Untaxed reserves	Note 15	**10,000**	**10,000**
Provisions			
Provisions for post-employment benefits	Note 16	268	248
Other provisions	Note 17	3	–
Total provisions		**271**	**248**
Non-current liabilities	Note 18		
Liabilities to Group companies		5,589	5,589
Other liabilities		6	6
Total non-current liabilities		**5,595**	**5,595**
Current liabilities			
Trade payables		87	226
Other liabilities to Group companies		1,789	39,246
Tax liabilities		1	1,722
Other liabilities	Note 19	487	779
Total current liabilities		**2,364**	**41,973**
Total equity and liabilities		**82,929**	**121,035**

CASH FLOW STATEMENT			
SEK M		**2020**	2019
Operating activities			
Operating income		–1,057	–1,384
Depreciation and amortization		0	0
Other non-cash items	Note 21	–45	–36
Total change in working capital whereof		–105	–725
Change in accounts receivable		*–107*	*–70*
Change in trade payables		*134*	*48*
Other changes in working capital		*–132*	*–703*
Interest and similar items received		0	1
Interest and similar items paid		–597	–829
Other financial items		–23	–13
Dividends received from group companies	Note 5	1,127	6,378
Dividends received from joint ventures and associated companies	Note 6	876	451
Group contributions received		25,792	14,440
Income taxes paid		–1,108	–2,218
Cash-flow from operating activities		**24,860**	**16,065**
Investing activities			
Investments in in-/tangible assets	Note 12	–	0
Disposals of in-/tangible assets	Note 12	0	–17
Investments of shares in group companies	Note 13	–300	–32
Divestments of shares in group companies	Note 5, 13	–	13
Investments of shares in non-group companies	Note 13	–125	–101
Divestments of shares in non-group companies	Note 13	176	–
Cash-flow after net investments		**24,611**	**15,928**
Financing activities			
New borrowings	Note 21	–	4,377
Repayment of borrowings	Note 21	–24,611	–
Dividends to AB Volvo shareholders		–	–20,335
Other		–	30
Change in cash & cash equivalents		**0**	**0**
Cash & cash equivalents, beginning of year		**–**	**–**
Cash & cash equivalents, end of year		**–**	**–**

CHANGES IN EQUITY						
	Restricted equity		Unrestricted equity			
SEK M	Share capital	Statutory reserve	Share premium reserve	Retained earnings	Total	Total equity
Balance at December 31, 2018	**2,554**	**7,337**	**378**	**51,275**	**51,653**	**61,544**
Income for the period	–	–	–	22,009	22,009	22,009
Other comprehensive income						
Other comprehensive income for the period						
Total income for the period	–	–	–	**22,009**	**22,009**	**22,009**
Transactions with shareholders						
Dividends to AB Volvo shareholders	–	–	–	–20,335	–20,335	–20,335
Share based payments	–	–	12	–11	1	1
Transactions with shareholders	–	–	12	–20,346	–20,334	–20,334
Balance at December 31, 2019	**2,554**	**7,337**	**390**	**52,938**	**53,328**	**63,219**
Income for the period	–	–	–	1,480	1,480	1,480
Other comprehensive income						
Other comprehensive income for the period						
Total income for the period	–	–	–	**1,480**	**1,480**	**1,480**
Transactions with shareholders						
Dividends to AB Volvo shareholders	–	–	–	–	–	–
Other changes	8	–	–	–8	–8	0
Transactions with shareholders	8	–	–	–8	–8	0
Balance at December 31, 2020	**2,562**	**7,337**	**390**	**54,410**	**54,800**	**64,699**

» **Read more in Note 19** Equity and number of shares in the consolidated financial statements about the share capital of the parent company.

NOTES TO FINANCIAL STATEMENTS

The amounts within parentheses refer to the preceding year, 2019.

1 ACCOUNTING POLICIES

The parent company has prepared its financial statements in accordance with the Swedish Annual Accounts Act (1995:1554) and RFR 2, Accounting for legal entities. According to RFR 2, the parent company shall apply all the International Financial Reporting Standards endorsed by the EU as far as this is possible within the framework of the Swedish Annual Accounts Act.

The changes in RFR 2 applicable to the fiscal year beginning January 1, 2020, has not had any significant impact on the parent company.

There are no announced changes in RFR 2 applicable to the fiscal year beginning January 1, 2021 or later.

The accounting policies applied by the Volvo Group are described in the respective notes in the consolidated financial statements. The main deviations between the accounting policies applied by the Volvo Group and the parent company are described below.

Shares and participations in group companies and Investments in joint ventures and associated companies are recognized at cost in the parent company and test for impairment is performed annually. In accordance with RFR 2, the parent company includes costs related to acquisition of a business in the acquisition value. Dividend is recognized in the income statement.

All holdings of shares were previously recognized as operational and the income was reported in the operating income. As from the financial year 2020 and onwards, all holding of shares are recognized as financial assets and the result is reported in the income from financial items. A corresponding change has also taken place for the comparison year.

Over the course of the year, the company has also made changes to the classification of certain intra-group transactions in the income statement. This reclassification has no effect on income and no change has taken place in respect of the company's transfer price model. A corresponding change for the comparison year means that an income of SEK 122 M has been reclassified within the operating income, from Income from investments in Group companies to Administration expenses.

As a consequence of the two above mentioned changes, the operating income for the financial year 2019 has therefore decreased by SEK 6,618 M. Accordingly, the income from financial items has increased by SEK 6,618 M.

The parent company applies the exception in the application of IFRS 9 which concerns accounting and measurement of financial contracts of guarantee in favor of subsidiaries and associated companies. The parent company recognizes the financial contracts of guarantee as contingent liabilities.

RFR 2 includes an exception in regard to IFRS 16, allowing all lease contracts to be accounted for as operational lease contract when the parent company is a lessee.

Reporting of group contributions is recognized in accordance with the alternative rule in RFR 2. Group contributions are reported as appropriations.

According to RFR 2, application of the regulations in IAS 19 regarding defined benefit plans is not mandatory for legal entities. However, IAS 19 shall be applied for supplementary disclosures when applicable. RFR 2 refers to the Swedish law on safeguarding of pension commitments ("tryggandelagen") related to recognition of provisions for post-employment benefits in the balance sheet and of plan assets in pension foundations.

Volvo Group applies IAS 19 Employee Benefits in the consolidated financial statements. This implies differences, which may be significant, in the accounting of defined benefit pension plans as well as in the accounting of plan assets invested in the Volvo Pension Foundation.

The accounting principles for defined benefit plans differ from IAS 19 mainly relating to:

- Pension liability calculated according to Swedish accounting principles does not take into account future salary increases.
- The discount rate used in the calculations is set by PRI Pensionsgaranti and Finansinspektionen, respectively.
- Changes in the discount rate, actual return on plan assets and other actuarial assumptions are recognized directly in the income statement and in the balance sheet.
- Deficit must be either immediately settled in cash or recognized as a liability in the balance sheet.
- Surplus cannot be recognized as an asset, but may in some cases be refunded to the company to offset pension costs.

2 REVENUE AND INTRA-GROUP TRANSACTIONS

The recognized net sales of SEK 327 M (362) pertain mainly to revenues from sale of services to group companies SEK 288 M (320). Revenue is recognized when the control of the service has been transferred to the customer, which is when the parent company incurs the associated cost to deliver the service and the customer can benefit from the use of the delivered services.

Purchases from group companies amounted to SEK 232 M (468).

3 ADMINISTRATIVE EXPENSES

Personnel

Wages, salaries and other remunerations amounted to SEK 418 M (471), social costs to SEK 120 M (143) and pension costs to SEK 210 M (193). During 2020 government grants due to the extraordinary situation raised by Covid-19, were received by SEK 23 M (–). Of these, SEK 18 M were recognized in the income statement, and SEK 5 M will be repaid to the authorities in Sweden. Pension cost of SEK 10 M (9) pertained to Board Members and the President. The parent company has outstanding pension obligations of SEK 1 M (1) to these individuals.

The number of employees at year end was 289 (331).

» **Read more in Note 27** Personnel in the consolidated financial statements about the average number of employees, wages, salaries and other remunerations including incentive program as well as Board members and senior executives by gender.

Depreciation

Administrative expenses include depreciation of SEK 0 M (0) and pertains to machinery and equipment.

Fees to the auditors	2020	2019
Deloitte AB		
– Audit fees	17	18
– Audit-related fees	3	1
– Other fees	0	1
Total	**20**	**20**

3:1

» **Read more in Note 28** Fees to the Auditors in the consolidated financial statements for a description of the different categories of fees.

4 OTHER OPERATING INCOME AND EXPENSES

Other operating income and expenses include loss on sale of rights by SEK – M (51), write-offs of receivables by SEK 33 M (–) and donations, grants and Volvo profit sharing program costs by SEK 14 M (4).

5 INCOME FROM INVESTMENTS IN GROUP COMPANIES

Income from investments in Group Companies	2020	2019
Dividends received		
Volvo China Investment Co., China	394	137
Volvo Italia Spa, Italy	243	–
JSC Volvo Vostok, Russia	214	316
Volvo Automotive Finance (China) Ltd, China	196	180
Volvo Malaysia Sdn Bhd, Malaysia	63	106
Volvo Norge AS, Norway	18	92
Volvo Autonomous Solutions AB (former Volvo Holding Sverige AB), Sweden	–	4,980
VNA Holding Inc., USA	–	1,423
Volvo Group UK Ltd., Great Britain	–	175
Volvo Danmark A/S, Denmark	–	100
Subtotal	**1,128**	**7,509**
Impairment of shares		
Volvo Equipamentos de Construcao Latin America	–490	–
Volvo Italia Spa, Italy	–225	–170
Volvo Construction Equipment AB, Sweden	–	–2,554
Volvo Lastvagnar Sverige AB, Sweden	–	–300
Subtotal	**–715**	**–3,024**
Reversal impairment of shares		
Volvo Bussar AB, Sweden	–	1,054
Volvo Information Technology AB, Sweden	–	145
JSC Volvo Vostok, Russia	–	143
Volvo Group UK, Ltd., Great Britain	–	134
Volvo Business Services AB, Sweden	–	118
Volvo Logistics AB, Sweden	–	85
VFS Servizi Financiari Spa Italy	–	22
Subtotal	**–**	**1,701**
Income from divestment of shares		
Alviva AB, Sweden	–	–21
Volvo Event Management SA, Belgium	–	2
Subtotal	–	**–19**
Income from investments in Group Companies	**413**	**6,167**

5:1

6 INCOME FROM INVESTMENTS IN JOINT VENTURES AND ASSOCIATED COMPANIES

Income from investments in joint ventures and associated companies include dividend from Dongfeng Commercial Vehicles Co., Ltd by SEK 1,058 M (392) and from VE Commercial Vehicles, Ltd. by SEK – M (59).

7 INCOME FROM OTHER INVESTMENTS

AB Volvo has not had any transactions from other investments which have had a significant impact on the financial statements.

8 INTEREST EXPENSES AND SIMILAR CHARGES

Interest expenses and similar charges totaling SEK 587 M (834) include interest of SEK 587 M (834) to subsidiaries.

9 OTHER FINANCIAL INCOME AND EXPENSES

Other financial income and expenses include exchange rate gains and losses, costs for credit rating and stock exchange listing cost.

10 APPROPRIATIONS

Appropriations include a net of group contributions of SEK 1,020 M (25,792), tax allocation reserve of SEK – M (4,000) and reversal of additional depreciation of SEK 0 M (0).

11 INCOME TAXES

Income taxes were distributed as follow:

Income taxes	2020	2019
Current taxes relating to the period	–111	–4,217
Adjustment of current taxes for prior period	673	34
Deferred taxes	91	21
I/S **Total income taxes**	**653**	**–4,162**

11:1

Deferred taxes relate to estimated tax on temporary differences.

Deferred taxes has been revaluated based on the tax rate that are expected for the period when the asset is realized or the liability are adjusted. Table 11:2 discloses the principal reasons for the difference between the corporate income tax of 21.4% and the tax for the period:

Income taxes for the period	2020	2019
Income before taxes	827	26,171
Income tax according to applicable tax rate	–177	–5,601
Capital gains/losses	0	–4
Non-taxable dividends	468	1,703
Tax effect due to changed income tax rate	–3	1
Non-taxable revaluations of shareholdings	2	16
Other non-deductible expenses	–210	–656
Other non-taxable income	0	349
Adjustment of current taxes for prior period	673	34
Withholding tax	–93	–9
Remeasurement of deferred tax assets	4	–2
Current tax on standardized method	–11	7
Income taxes for the period	**653**	**–4,162**

11:2

Specification of deferred tax assets	Dec 31, 2020	Dec 31, 2019
Provisions for post-employment benefits	298	207
B/S **Deferred tax assets**	**298**	**207**

11:3

12 INTANGIBLE AND TANGIBLE ASSETS

Intangible assets, acquisition costs	Other intangible assets	Total intangible assets
Opening balance 2019	**116**	**116**
Sales	–	**–**
Acquisition cost as of 2019-12-31	**116**	**116**
Sales	–	**–**
Acquisition cost as of 2020-12-31	**116**	**116**

Intangible assets, accumulated amortization	Other intangible assets	Total intangible assets
Opening balance 2019	**116**	**116**
Sales	–	**–**
Accumulated amortization as of 2019-12-31	**116**	**116**
Sales	–	**–**
Accumulated amortization as of 2020-12-31	**116**	**116**
B/S **Net value in balance sheet as of December 31, 2019**[1]	**–**	**–**
B/S **Net value in balance sheet as of December 31, 2020**[1]	**–**	**–**

Tangible assets, acquisition costs	Machinery and equipment	Total tangible assets
Opening balance 2019	**21**	**21**
Sales/scrapping	–4	**–4**
Acquisition cost as of 2019-12-31	**17**	**17**
Sales/scrapping	–1	**–1**
Acquisition cost as of 2020-12-31	**16**	**16**

Tangible assets, accumulated depreciation	Machinery and equipment	Total tangible assets
Opening balance 2019	**13**	**13**
Depreciation	0	**0**
Sales/scrapping	–3	**–3**
Accumulated depreciation as of 2019-12-31	**10**	**10**
Depreciation	0	**0**
Sales/scrapping	–1	**–1**
Accumulated depreciation as of 2020-12-31	**9**	**9**
B/S **Net value in balance sheet as of December 31, 2019**[1]	**7**	**7**
B/S **Net value in balance sheet as of December 31, 2020**[1]	**7**	**7**

1 Acquisition value, less accumulated depreciation, amortization and impairment.

12:1

13 INVESTMENTS IN SHARES AND PARTICIPATIONS

Shares and participations in group companies
During 2020, shareholder´s contribution has been paid to Volvo Logistics AB by SEK 300 M. Impairment of investment in Volvo Equipamentos de Construcao Latin America has been made by SEK 490 M and in Volvo Italia Spa by SEK 225 M.

During 2019, shares in Volvo Equipamentos de Construcao Latin America was received in form of dividend from Volvo Autonomous Solutions AB (former Volvo Holding Sverige AB) by SEK 830 M. Shareholder´s contribution was paid to Alviva AB by SEK 32 M and Alviva AB was divested with carrying value of SEK 32 M. Impairment of Volvo Construction Equipment AB was made by SEK 2,554 M. This impairment refers to previous ownership of Volvo Construction Equipment N.V. which was transferred to Volvo Construction Equipment AB 2018 as a shareholder´s contribution. Impairment has been made in Volvo Lastvagnar Sverige AB by SEK 300 M and Volvo Italia Spa by SEK 170 M. Reversal of impairments was made in Volvo Bussar AB by SEK 1,054 M, Volvo Information Technology AB by SEK 145 M, JSC Volvo Vostok by SEK 143 M, Volvo Group UK by SEK 134 M, Volvo Business Services AB by SEK 118 M, Volvo Logistics AB by SEK 85 M and VFS Servizi Financiari Spa by SEK 22 M.

In December 2019, the Volvo Group announced the intention to transfer ownership of the complete UD Trucks business globally from the Volvo Group to Isuzu Motors. In October 2020, the binding agreements were signed and the transaction is expected to be fulfilled during first half of 2021.

Investments in joint ventures and associated companies
During 2020 investment in World of Volvo AB by SEK 125 M has been made with 50% ownership. The investment is classified as a joint venture together with Volvo Car Corporation. The participation of 50% in Blue Chip Jet II HB has been divested by SEK 176 M.

During 2019 capital contribution has been paid to Blue Chip Jet II HB by SEK 100 M.

Other shares and participations
No significant transactions have affected the value of other shares and participations during 2020 and 2019.

Changes in AB Volvo´s holding of shares and participations	Group companies		Joint ventures and associated companies		Other shares and participations	
	2020	2019	**2020**	2019	**2020**	2019
Opening balance	**72,272**	**72,765**	**8,997**	**8,894**	**1**	**4**
Acquisitions/New issue of shares	–	830	125	–	–	–
Divestments/Redemption of shares	–	–32	–176	–	–	–
Shareholder's contribution	300	32	–	100	1	1
Impairment of shares and participations	–715	–3,024	–	–	–1	–1
Reversal impairment of shares and participations	–	1,701	–	–	–	–
Reclassification	–	–	–	3	–	–3
B/S **Carrying value, as of December 31**	**71,857**	**72,272**	**8,946**	**8,997**	**1**	**1**

13:1

Holding of shares in Joint Ventures, associated companies and other shares and participations	Registration number	**Dec 31, 2020** Percentage holding[1]	**Dec 31, 2020** Carrying value[2]	Dec 31, 2019 Carrying value[2]
Dongfeng Commercial Vehicles Co. Ltd., China	–	45.0	7,197	7,197
VE Commercial Vehicles Ltd., India[3,4]	–	34.7	1,616	1,616
Blue Chip Jet II HB, Sweden	969717-2105	–	–	176
World of Volvo AB, Sweden[4]	559233-9849	50.0	125	–
Other investments	–		9	9
Total carrying value, joint ventures, associated companies and other shares and participations			**8,947**	**8,998**

13:2

1 The percentage holding refers to the parent company AB Volvo's holding.
2 Refers to AB Volvo's carrying value of its holding.
3 The total holding by Volvo Lastvagnar AB and AB Volvo is 45.6%.
4 In Volvo Group the companies are reported as joint ventures, consolidated according to equity method.

AB Volvo owns, directly or indirectly, 285 (276) legal entities. The direct owned entities are listed in below table.

Holding of shares in Group companies	Registration number	Dec 31, 2020 Percentage holding[1]	Dec 31, 2020 Carrying value[2]	Dec 31, 2019 Carrying value[2]
Volvo Lastvagnar AB, Sweden	556013-9700	100	8,711	8,711
Volvo Autonomous Solutions AB (former Volvo Holding Sverige AB), Sweden	556539-9853	100	8,134	8,134
UD Trucks Corporation, Japan	–	100	8,928	8,928
Volvo Bussar AB, Sweden	556197-3826	100	3,033	3,033
Volvo Construction Equipment AB, Sweden	556021-9338	100	7,559	7,559
AB Volvo Penta, Sweden	556034-1330	100	586	586
VNA Holding Inc., USA	–	100	3,688	3,688
Volvo Financial Services AB, Sweden	556000-5406	100	2,667	2,667
Volvo Treasury AB, Sweden	556135-4449	100	13,044	13,044
Sotrof AB, Sweden	556519-4494	100	2,888	2,888
Volvo Lastvagnar Sverige AB, Sweden	556531-8572	100	2,355	2,355
Volvo China Investment Co Ltd., China	–	100	1,302	1,302
Volvo Automotive Finance (China) Ltd., China	–	100	491	491
Volvo Group UK Ltd., Great Britain[3]	–	35	350	350
Volvo Group Mexico SA, Mexico	–	100	543	543
Volvo Group Venture Capital AB, Sweden	556542-4370	100	369	369
Volvo Powertrain AB, Sweden	556000-0753	100	898	898
Volvo Information Technology AB, Sweden	556103-2698	100	1,511	1,511
Volvo Parts AB, Sweden	556365-9746	100	200	200
Volvo Group Insurance Försäkrings AB, Sweden	516401-8037	100	182	182
Volvo Business Services AB, Sweden	556029-5197	100	118	118
Volvo Danmark A/S, Denmark	–	100	157	157
VFS Servizi Financiari Spa, Italy[4]	–	25	101	101
Kommersiella Fordon Europa AB, Sweden	556049-3388	100	2,693	2,693
Volvo Norge AS, Norway	–	100	50	50
Volvo Malaysia Sdn Bhd., Malaysia	–	100	48	48
JSC Volvo Vostok, Russia[5]	–	75	177	177
Volvo Italia Spa, Italy[6]	–	65	335	559
Volvo Logistics AB, Sweden	556197-9732	100	385	85
Volvo Information Technology GB Ltd., Great Britain	–	100	3	3
VFS Latvia SIA, Latvia	–	100	9	9
VFS Int Romania Leasing Operational, Romania	–	100	2	2
Volvo Equipamentos de Construcao, Latin America, Brazil[7]	–	66	340	830
Other holdings	–		0	1
Total carrying value Group companies[8]			**71,857**	**72,272**

13:3

1 The percentage holding refers to the parent company AB Volvo's holding.
2 Refers to AB Volvo's carrying value of its holding.
3 Total holding by Volvo Lastvagnar AB and AB Volvo is 100%.
4 Total holding by Volvo Italia Spa and AB Volvo is 100%.
5 Total holding by AB Volvo and Volvo Trucks Region Central Europe GmbH is 100%.
6 Total holding by Renault Trucks (SAS), Volvo Lastvagnar AB, AB Volvo Penta and AB Volvo is 100%.
7 Total holding by Volvo Autonomous Solutions AB and AB Volvo is 100%.
8 AB Volvo's share of shareholders' equity in subsidiaries (including equity in untaxed reserves) was SEK 144,701 M (139,883).

14 OTHER RECEIVABLES

	Dec 31, 2020	Dec 31, 2019
Accounts receivable	14	7
Prepaid expenses and accrued income	20	53
Other receivables	51	300
B/S **Total other receivables**	**85**	**360**

14:1

There is no valuation allowance for doubtful receivables at the end of the year. Fair value is not considered to differ from carrying value.

15 UNTAXED RESERVES

	Dec 31, 2020	Dec 31, 2019
Tax allocation reserve	10,000	10,000
Accumulated additional depreciation:		
Machinery and equipment	0	0
B/S **Total untaxed reserves**	**10,000**	**10,000**

15:1

16 PROVISIONS FOR POST-EMPLOYMENT BENEFITS

The parent company has two types of pension plans, defined contribution plans and defined benefit plans.

Defined contribution plans: post-employment benefit plans where the company makes regular payments to separate entities and has no legal or constructive obligation to pay further contributions. The expenses for defined contribution plans are recognized during the period when the employee provides service.

Defined benefit plans: post-employment benefit plans where the company's undertaking is to provide predetermined benefits that the employee will receive on or after retirement. These benefit plans are secured through balance sheet provisions or pension fund contributions. Furthermore, a credit insurance policy has been taken out for the value of the obligations. The main defined benefit plan is the ITP2 plan which is based on final salary. The plan is semi-closed, meaning that only new employees born before 1979 have the possibility to choose the ITP2 solution. The ITP2 plan for the company is funded in Volvo Pension Foundation. Pension obligations are calculated annually, on the balance sheet date, based on actuarial assumptions.

The defined benefit obligations are calculated based on the actual salary levels at year-end and based on a discount rate of 3.84% (3.84) for the ITP2 plan and 0.3% (0.7) for other pension obligations. Assumptions for discount rates and mortality rates are determined annually by PRI Pensionsgaranti for ITP2 and Finansinspektionen for other pension obligations, respectively.

The Volvo Pension Foundation was formed in 1996 to secure obligations relating to retirement pensions in accordance with the ITP plan. Since its formation, net contributions of SEK 332 M have been made to the foundation by the parent company.

Provisions for post-employment benefits in the parent company's balance sheet correspond to the present value of obligations at year end, less fair value of plan assets.

Obligations in defined benefit plans	Funded	Unfunded	Total
Obligations opening balance 2019	**663**	**258**	**921**
Service costs	31	1	32
Interest costs	27	2	29
Benefits paid	–21	–13	–34
Obligations as of December 31, 2019	**700**	**248**	**948**
Service costs	26	19	45
Interest costs	28	1	29
Benefits paid	–23	0	–23
Obligations as of December 31, 2020	**731**	**268**	**999**

16:1

Fair value of plan assets in funded plans	
Plan assets opening balance 2019	**788**
Actual return on plan assets	110
Contributions and compensation to/from the fund	33
Plan assets as of December 31, 2019	**931**
Actual return on plan assets	126
Contributions and compensation to/from the fund	0
Plan assets as of December 31, 2020	**1,057**

16:2

Provisions for post-employment benefits	Dec 31, 2020	Dec 31, 2019
Obligations[1]	–999	–948
Fair value of plan assets	1,057	931
Funded status	**58**	**–17**
Limitation on assets in accordance with RFR2 (when plan assets exceed corresponding obligations)	–326	–231
B/S **Net provisions for post-employment benefits[2]**	**–268**	**–248**

16:3

1 The ITP2 obligations amount to SEK –714 M (–683).

2 ITP2 obligations, net, amount to SEK 0 M (0).

Pension costs	2020	2019
Service costs	46	32
Interest costs[1]	29	29
Interest income[1]	17	–2
Pension costs for defined benefit plans	**92**	**59**
Pension costs for defined contribution plans	**62**	**62**
Special payroll tax/yield tax[2]	51	67
Cost for credit insurance FPG	5	5
Total costs for the period	**210**	**193**

16:4

1 Interest income, net of SEK 17 M (–2) is included in financial items.

2 Special payroll tax/yield tax are calculated according to Swedish Tax law and accrued for in current liabilities.

17 OTHER PROVISIONS

Other provisions include provisions for restructuring measures of SEK 3 M (–).

18 NON-CURRENT LIABILITIES

Maturity	
2022–2026	5,591
2027 or later	4
B/S **Total non-current liabilities**	**5,595**

18:1

19 OTHER LIABILITIES

	Dec 31, 2020	Dec 31, 2019
Wages, salaries and withholding taxes	282	294
Accrued expenses and prepaid income	191	480
Other liabilities	14	5
B/S **Total other liabilities**	**487**	**779**

19:1

No collateral is provided for current liabilities.

20 CONTINGENT LIABILITIES

Contingent liabilities as of December 31, 2020, amounted to SEK 278,457 M (307,460) of which SEK 278,410 M (307,194) pertained to group companies.

Credit guarantees are included to an amount corresponding to the credit limits. Credit guarantees amounted to SEK 266,286 M (284,992). The total amount pertained to group companies.

The utilized portion at yearend amounted to SEK 138,757M (139,894), of which SEK 138,743 M (139,871) pertained to group companies.

21 CASH-FLOW

Other non-cash items	**2020**	2019
Transfer price adjustments, net	–85	–58
Other changes	40	22
Total Other items not affecting cash flow	**–45**	**–36**

21:1

Change in loans	Non-current liabilities to Group companies	Current liabilities to Group companies
	Loan Volvo Treasury AB	Loan/Cashpool Treasury AB
December 31, 2018	**13,973**	**13,554**
Cash flows new borowings	–	4,377
Cash flows repayments of borrowings	–	–
Reclassification	–8,384	8,384
Other	–	8
December 31, 2019	**5,589**	**26,323**
Cash flows new borrowings	–	–
Cash flows repayments of borrowings	–	–24,611
Reclassification	–	–
Other	–	–4
December 31, 2020	**5,589**	**1,708**

21:2

GROUP SUSTAINABILITY DISCLOSURES

About the report
These Sustainability notes include the Volvo Group's collected sustainability disclosures. As sustainability topics are top strategic issues for the Volvo Group, additional sustainability disclosures can be found in other parts of the report, see below.

Governance
The overall governance of sustainability is described in the Corporate Governance report on page 175 and 182.

Strategy and Business model
The Volvo Group´s strategy includes sustainability priorities and are presented on pages 8–39. Our business model is outlined on pages 18–23. With business operations in more than 190 countries whereof many are classified as high-risk countries from an environmental, human rights or corruption perspective we need to ensure that we pursue our business operations in a responsible manner. Environmental, social and financial sustainability aspects as well as ethical business conduct are integrated into the Volvo Group overall strategy and business model and also incorporated into our processes and policies.

Policies
The Volvo Group Code of Conduct is a Group-wide policy that sets the standards on how we conduct business; ethically and in compliance with applicable laws and regulations. It applies everywhere we operate, for our employees and everyone else who works on our behalf. In addition to the Code of Conduct, the Volvo Group's policies on competition, data privacy, anti-corruption and export control, tax and environment are complemented with compliance programs and management systems for effective policy deployment. In line with our decentralized model each business area is responsible to ensure compliance with the Volvo Group's minimum requirements and standards for sustainable and responsible business conduct. Business areas are also free to complement existing policies and compliance programs with more stringent requirements.

Risks and mitigation
The Volvo Group's enterprise risk management process includes sustainability-related risks. Material sustainability-related risks for the Volvo Group are reported in the overall Risks and uncertainties section, see pages 68–75. These Sustainability Notes include a more detailed overview on risks and mitigation activities.

Key Performance Indicators
KPI's in relation to the environment, employees, social factors, human rights and business ethics are reported for each material topic in these Sustainability notes.

UN GLOBAL COMPACT
COMMUNICATION ON PROGRESS

This is our **Communication on Progress** in implementing the principles of the **United Nations Global Compact** and supporting broader UN goals.

We welcome feedback on its contents.

Reporting standards referred
This report has been prepared in accordance with the Global Reporting Initiative's (GRI) Standards "Core" option. GRI is complemented by other relevant frameworks where stated. GRI and UN Global Compact's guide Business Reporting in the SDGs have been used to translate the disclosures herein to a number of the 169 SDG targets.

Topics related to this report
Complementary information is available on volvogroup.com/asr2020. This includes:
- GRI index, also available on volvogroup.com/gri2020
- SASB index, Industrial Goods and Machinery
- Locations of major operations
- Membership of associations
- Code of Conduct and related policies

Impacts, stakeholders and material topics

Report content
Volvo Group's sustainability disclosures are prepared to provide stakeholders with relevant information about the Group's economic, environmental and social impact. In defining the report content, the Volvo Group applies GRI's reporting principles on stakeholder inclusiveness, sustainability context, materiality and completeness.

Strategic framework
During 2019 and 2020 Volvo Group updated its strategic framework to drive sustainability and performance, revolving around climate, resources and people. Sustainability priorities have been concluded in dialogue with a network of sustainability professionals and management of all truck divisions, business areas as well as the executive management of the Volvo Group and the Board of Directors.

Consulting stakeholders
Stakeholder perspectives are considered throughout strategy development and deployment. The approach is to have an open dialogue with a wide range of stakeholders on sustainable business for the purpose of establishing key sustainability priorities. In this work, input from stakeholders are sought via key functions within the Volvo Group and include views from stakeholders such as customers, investors, employees, supply chain partners and community.

While different stakeholder groups raise concerns or ask for specific information on different topics certain sustainability topics are common for most stakeholder groups. During 2020 such topics have revolved mainly around health, climate and human rights. Read more about our main stakeholder groups and their topics of interest, materiality and reporting on volvogroup.com/materiality.

Translated into GRI topics, material topics are briefly described in the table below. More details are provided under the specific sustainability notes on the following pages and complemented by the risk descriptions on pages 150–170.

Additional topics are mentioned briefly but not according to GRI, e.g. materials of concern, lobbying, compliance and tax practices.

Material topics and summary of main impacts

GRI topic	Supply chain	Volvo Group	Customers and society	Comment on the main impacts and boundaries
Economic performance	•	•	•	Risks and opportunities mainly relate to the transitional aspects of customer demands, emission regulation, technology development and scarce materials.
Energy and emissions	•	•	•	Reducing environmental impacts from customers' use of our products is a key business driver. Over 95% of energy and emissions related to the product's lifecycle occur in the customer use phase. It is also important to reduce emissions in Volvo Group's own operations and transportation of goods.
Waste, water and environmental compliance	•	•		Environmental footprint from own operations, including energy and emissions are managed by a Group wide environmental management system.
Employment		•		Continuously improving workplaces, creating jobs and adapting to market demands are primarily tied to the Group's own operations.
Labor management relations		•		A respectful social dialogue creates better workplaces and can help effective management of operations.
Diversity and equal opportunities		•		Diversity drives performance for the Group and equal opportunities in the community.
Training and education		•	•	Training enables matching of competency to needs for employees, the Volvo Group and customer and helps to create employment opportunities.
Occupational health and safety	•	•		The main focus is on own operations and employees' work situation but also a significant part of supplier requirements.
Customer health and safety			•	Health and safety related to the product use phase and the wider impact on road safety and end users' occupational safety.
Supplier environmental and social assessments	•			Suppliers make up the extended operations of the Group. Influence is mainly bound to tier one and focus areas are social topics as well as innovation for reduced environmental impact.
Human rights (including sub-topics)	•	•	•	Includes potential human rights impacts within Volvo Group's operations, the supply chain, operations of business partners and in relation to the use of sold products.
Anti-corruption	•	•	•	Volvo Group condemns all form of corruption. It distorts the market, interfere with free competition, violate laws and undermine social development.

Climate and environment

GOVERNANCE, STRATEGY AND RISK MANAGEMENT

Connection to Agenda 2030 and reporting standards

SUSTAINABLE DEVELOPMENT GOALS

Main connections to the UN SDGs and targets

7.3 Double energy efficiency
11.2 Sustainable transport systems
12.2 Sustainable management of natural resources
13.3 Knowledge and capacity building to meet climate change

Referenced reporting standards

GRI 201 – Economic performance
GRI 302 – Energy
GRI 305 – Emissions
TCFD recommendations

The Volvo Group supports the Task Force on Climate-related Financial Disclosures initiative (TCFD). The below sets forth the Group's disclosures on its overall governance, strategy and management of climate related risks and opportunities, including relevant climate related metrics and targets.

Governance

Climate-related risks and opportunities are critical topics of the transport sector today and are integrated parts of the Volvo Group overall strategy and business model. Risk assessment, decision-making and accountability is embedded in the line organization in accordance with the Volvo Group Governance Framework. The AB Volvo Board of Directors and the Executive Board set the strategic direction for the Group's work as further detailed on page 172–182 in the Corporate Governance Report. The strategic work is facilitated by cross-functional working groups that consolidate and prepare information for decision-making at Executive and AB Volvo Board level.

Strategy

The Volvo Group supports the ambitions of the Paris Agreement – to keep the increase of the global average temperature to well below 2°C above pre-industrial level and to pursue efforts to limit the temperature increase to 1.5 °C. In this scenario, emissions would need to decline rapidly across all of society's main sectors, including buildings, industry, transport and energy. In the transport sector, there is an increasing need for electrified products and for solutions using technologies that increase resource efficiency. The ongoing transition of the transport sector towards new technologies and new service-based business models bring significant business opportunities as well as transitional risks for the Volvo Group as further described below.

Scenario analysis

Potential pathways to a 1.5°C or a well below 2°C scenario include a successive decarbonization of the transport sector and of the energy sector. New technology solutions such as electric vehicles are, in order to deliver their full potential, depending on access to energy sources with low CO_2 intensity.

The Volvo Group has committed to the business ambition of the Science Based Target initiative to limit the global temperature rise to 1.5°C above pre-industrial levels and to reach net-zero by 2050. In working towards this ambition, the Volvo Group has performed CO_2 emission reduction scenarios based on the composition of the annual volume and CO_2 intensity of products forecasted to be put on different markets over time. Each Business Area and Truck Division have made their own scenario analyses, covering factors such as customer demand, regulatory requirements, infrastructure roll-out, access to renewable energy, governmental incentives for clean technologies, removal of governmental subsidies for fossil fuels etc. The analyses are made to set a strategy with the right mix of products for the respective market over time, a mix which may include electrified products as well as conventional combustion engine products powered by renewable liquid and gaseous fuels.

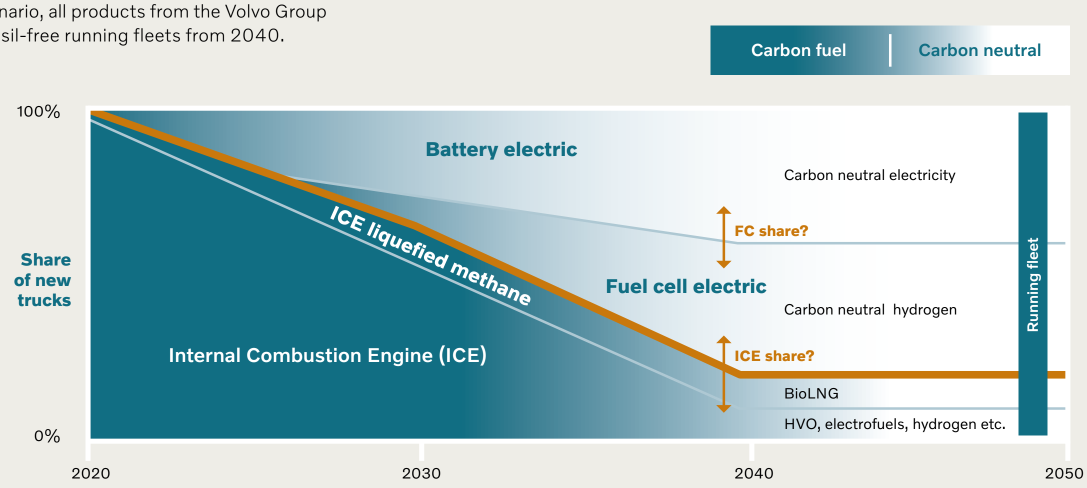
Climate-related opportunities for the Volvo Group

The transition of the transport sector offers significant business opportunities for the Volvo Group. The Volvo Group strives to lead the development of new technologies and has developed, and is continuing to develop an extensive portfolio of products and services using new technologies to continue to provide high quality products and services to our customers, while at the same time enabling our customers to reduce their environmental impact. The Volvo Group is broadening its offer of products that can be powered by renewable energy through the introduction of electric vehicles as described in the strategy section on pages 13–14. Another example is the electrification of the entire European Volvo Truck range, see page 25. The Group also invests in fuel cell technology with the ambition to have a heavy-duty hydrogen offer available during the second half of this decade. In parallel, the Volvo Group continues to offer products that can be powered by renewable liquid and gaseous fuels like HVO and biogas, see page 26. In addition to new technology products, the Volvo Group has developed a range of service solutions that helps to reduce the number of transports needed by optimizing fill rates, consolidating transports and choosing the most effective routing, see examples on page 33.

Customer demand for products and solutions with lower environmental impact is increasing. Total cost of ownership is steadily reduced over time as the operational cost of fuel are gradually shifted to capital cost for electric propulsion. The transition to electrification also depends upon external factors such as the existence of a functioning charging infrastructure and access to renewable energy sources to power battery electric and fuel cell electric products. Customer demand in different markets is depending on factors such as availability of the necessary infrastructure and energy, governmental incentives for green technologies and the removal of fossil-fuel subsidies. The Volvo Group strives to have products and solutions available in pace with customer demand using a highly flexible production system.

The Volvo Group invests in new technologies and new business models. In addition to that, the Volvo Group has issued a Green Financial Framework to get access to additional capital for the development and production of sustainable technologies for the transport sector, see pages 64.

Illustrative scenario for 1.5°C
In this scenario, all products from the Volvo Group enable fossil-free running fleets from 2040.



The illustration above shows a pathway to reach the ambitions of the Paris Agreement and to achieve net-zero emissions by 2050. Because it takes around ten years to renew a running fleet, the aim is to by 2040 offer products exclusively propelled by carbon neutral alternatives. The exact future product mix cannot be foreseen but in this scenario the running fleets in the transportation sector are likely to include different technologies that can be powered by renewable energy. These solutions can be battery-electric, fuel cell-electric or vehicles propelled with low CO_2 intensity energy sources for combustion engine drivelines. In order to reach the ambitions of the Paris Agreement, this shift needs to happen on a global scale. Some markets are expected to be more progressive in this transition depending on of technology and infrastructure development, emission regulation, market incentives and customer demand.

Climate-related risks for the Volvo Group
Climate-related risks can be divided into transitional risks and physical risks. Transitional risks include technology-related risks, policy and legal-related risks, market risks and reputational risks. Physical risks are acute physical risks such as extreme weather events and chronic physical risks due to changing weather patterns and rising mean temperature and sea levels. With the ambition to limit the temperature increase to 1.5°C, the transitional risks are considered as the most material for the Volvo Group.

Transitional climate risks
The Volvo Group has identified a number of climate related transitional risks, which are incorporated into the Volvo Group Enterprise Risk Management process. Transitional risks are considered material for the Volvo Group in the short, medium and long term. These risks, including their potential financial impact, are described in more detail in the Group's overall Risks and uncertainties section on page 68–75 under the following risk categories:

- Extensive governmental regulations, page 69
- Technology shift and convergence, page 70
- Customer satisfaction and demand, page 70
- Reliance on suppliers and scarce materials, page 71
- Climate related and environmental regulations, page 72

Physical risks
Based on the main scenario outlined in the Volvo Group's strategy – a 1.5°C scenario – the physical risks are not identified as material in the short- to medium-term perspective. However, climate-related acute physical risks such as extreme weather events as well as chronic physical risks are likely to increase for the Volvo Group in the long-term perspective if the global warming significantly deviates from a 1.5°C scenario. Potential physical risks will be closely monitored, reviewed and reported in the Risks and uncertainties disclosures if and when they emerge as material risks.

In summary, the Volvo Group strives to contribute to the transition of the transport sector and to support our customers in the shift to new and more sustainable technologies. A successful positioning of the Volvo Group in this transition may lead to increased revenue streams, whereas an unsuccessful positioning may negatively affect the Volvo Group's earnings and financial standing, as explained in the risks section on pages 69–72. In the transition towards solutions that can to a greater extent be powered by renewable energy, the Volvo Group will utilize its common architecture and shared technology (CAST, read more on page 26), and adapt its production system to develop and produce new products and services in a cost-effective way.

Risk management
In accordance with the decentralized Volvo Group governance model, each Business Area and Truck Division is accountable for its risk management. The Volvo Group works with a Group-wide Enterprise Risk Management (ERM) process, which is a systematic and structured process to consolidate and analyze risks and mitigations as well as to follow up on the risks that might impact the Group's business. Truck Divisions, Business Areas and Group functions report risks in the ERM process using an integrated multi-disciplinary approach. The ERM process includes all types of risks for the Volvo Group, including climate related risks and other sustainability related risks.

The ERM risks are divided into five categories, i.e. Macro and market related risks, Operational risks, Climate and society risks, Compliance risks and Financial risks. Climate related risks are mainly reported in the Climate and society risks category, but as the nature of climate risks are overlapping with certain other identified risk categories, some climate-related risks are also reported under Macro and market related risks and Operational risks.

The risks identified in the ERM process are considered from a short-, medium- and/or long-term perspective and are further reviewed from a materiality standpoint. The risks identified in the ERM process are assessed through a materiality analysis conducted with internal and external stakeholders and the risks that are classified as material are considered to be the most prominent risk factors for the Volvo Group, see page 68.

Certain climate-related transitional risks have been identified as material to the Volvo Group in connection with the ERM Process, see above and pages 68–75.

Metrics and targets
The Volvo Group uses various metrics and targets to assess climate-related and environmental risks and opportunities in relation to its products and operations, see Energy and Emissions on pages 155–157 and Waste, Water and Environmental compliance on page 158.

Index of TCFD recommended disclosures

		Page reference
Governance The organizations governance around climate-related issues and opportunities	The Board's oversight of climate-related risks and opportunities.	175
	The Management's role in assessing and managing climate related risks and opportunities.	182
Strategy Actual and potential impacts of climate-related risks and opportunities on the organization's business, strategy and financial planning where such information is material	The climate-related risks and opportunities the organization has identified over the short, medium and long term.	152
	The impact of climate-related risks and opportunities on the organization's businesses, strategy and financial planning.	152
	The resilience of the organization's strategy taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	153–154
Risk Management Actual and potential impacts of climate-related risks and opportunities on the organization's business, strategy and financial planning where such information is material	The company's processes for identifying and assessing climate-related risks.	68, 153
	The organization's processes for managing climate-related risks.	68, 153–154
	The processes for identifying, assessing and managing climate-related risks are integrated into the organization's overall risk management.	68, 153–154
Metrics and targets Actual and potential impacts of climate-related risks and opportunities on the organization's business, strategy and financial planning where such information is material.	The metrics used by the organization to assess climate related risks and opportunities in line with its strategy and risk management process.	154, 155
	The Scope 1, Scope 2 and, if appropriate, Scope 3 GHG emissions and the related risks.	155–157
	The targets used by the organization to manage climate-related risks and opportunities and performance against targets.	155–157

ENERGY AND EMISSIONS

Connection to Agenda 2030 and reporting standards

SUSTAINABLE DEVELOPMENT GOALS

Main connections to the UN SDGs and targets
7.3 Double rate of energy efficiency
8.4 Resource efficiency in production
11.2 Sustainable transport systems
12.2 Sustainable management of natural resources

7 AFFORDABLE AND CLEAN ENERGY
8 DECENT WORK AND ECONOMIC GROWTH
11 SUSTAINABLE CITIES AND COMMUNITIES
12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Referenced reporting standards
GRI 401 – Energy
GRI 402 – Emissions
TCFD recommendations

The Volvo Group's Environmental Policy is the steering document addressing risks and opportunities in areas such as emissions, resource use, chemicals and residuals. Strategic priorities related to environment and climate are based on product life cycle assessments, to reduce emissions and other climate-related risks where they make the most impact.

Emission metrics, targets and disclosures are based on the Greenhouse Gas (GHG) Protocol corporate standard. In line with this standard, the Volvo Group monitors significant scope 1, 2 and partly scope 3 emissions. When nothing else is stated, CO_2 emissions are adjusted for acquisitions and divestments according to the accounting principles of the GHG protocol. Product life cycle assessments show that around 95% of the energy and emissions are connected to the use of sold products. Energy and emissions from production and freight transportation are additional important strategic areas.

The Volvo Group has reported climate-related information, targets and results since the beginning of the 2000s. The latest target period was developed as part of the WWF Climate Savers program and covered the period 2015–2020, see highlight on page 29. The approach of managing climate-related risks has served the Volvo Group well, both in terms of reducing emissions in line with targets set and in terms of developing new technologies and business plans to meet the transition towards fossil-free transports.

Looking ahead, the Volvo Group is in the process of setting new climate-related objectives in line with the ambition of the Paris Agreement. In this work the Volvo Group has committed to the Science Based Targets initiative. Follow the development on volvogroup.com/climate.

Scope and area	Metrics and targets	Achievements and comments
Scope 1 and 2 emissions from own production and operations Emissions from production and operations make up a smaller part of the product life-cycle emissions. However, the direct management control of this scope makes it highly relevant for the Volvo Group. Targets and ambitions are set to increase energy efficiency for operations and to reduce the carbon intensity of the energy used.	• Scope 1 and 2 emissions according to GHG protocol • Increase share of renewable energy to 65% by 2025 • Implement energy savings of 150 GWh 2015–2020 and an additional 150 GWh 2021–2025	• Scope 1 and 2 emissions down 35% since 2015 • 52% renewable energy in 2020 • Since 2015, 1,260 activities have been implemented, that together save 207 GWh per year from 2020
Scope 3 emissions from own transportation and distribution Similar to the production and operations, this part makes up a smaller part of the life-cycle impact but is important due to its close link to Volvo Group's business, mission and vision. The Volvo Group works with third party logistics providers to increase the use of CO_2 efficient transport modes and to reduce unnecessary transports by e.g. increasing fill rates and more efficient routing. The more efficient the Volvo Group can make its own logistics network the better suited the Group is to provide transport solutions for its end-users and contribute to making their transport systems more efficient.	• Until 2020 – reduce freight CO_2 emissions per produced unit by 20% from baseline 2013 • Next period target – reduce CO_2 emissions per produced unit by 30% 2025 from baseline 2018	• In 2020, the freight CO_2 emissions per produced unit were 24% below baseline 2013
Scope 3 emissions during use of sold products The most significant part of the emissions occurs during the use of sold products – when the end-users drive or operate vehicles and machines. This is the foundation for the Volvo Group's business and environmental priorities. The majority the Group's total R&D expenditure is invested into lower emission technologies such as electrification, alternative fuels, fuel efficiency and exhaust cleaning.	• Reduce use-phase emissions by 40 million tons of CO_2 cumulative between 2015 and 2020 • Next period target – 35% electric vehicle sales by 2030	• The attainment by end of 2020 was 43 million tons • Examples of electric introduction in all segments on page 13–14

New targets for scope 1, 2 and 3 emissions are being developed as part of the Volvo Group's commitment to the Science Based Targets initiative.

Energy within and outside the organization
(Connected to scope 1 and 2 emissions)

Energy GWh		2020	2019	2018	2017	2013
Natural gas	*Scope 1*	459	551	573	539	727
Diesel	*Scope 1*	168	207	219	192	271
Other	*Scope 1*	144	175	186	187	81
Electricity	*Scope 2*	873	998	1,031	981	1062
District heating	*Scope 2*	172	187	186	170	156
Total		**1,816**	**2,118**	**2,195**	**2,069**	**2,320**

Energy intensity and share from renewable sources

Energy intensity	2020	2019	2018	2017	2013
Net sales, SEK M	326	418	378	324	265
Energy / net sales[1] MWh/SEK M	5.6	5.1	5.8	6.4	8.7
Share of energy from renewable sources[2], %	52%	48%	43%	40%	–

1 The energy use in relation to net sales is not adjusted for acquisitions and divestments since the denominator of revenues are not.

2 Reported first time 2017

Scope 3 emissions of sold products are the customers' scope 1 or 2

The Volvo Group assesses environmental impacts of solutions using life-cycle assessments (LCA). One example from Volvo Trucks is described below where four different vehicles are presented, the Volvo FE Electric vs. a Volvo FE diesel and a Volvo FH LNG vs. a Volvo FH diesel. Applying LCA can provide a good overview of where environmental impacts occur and where to focus improvements. LCA further help to identify trade-offs that may occur in other places in the value chain when choosing one solution over another. Please go to Volvo Trucks Environmental footprint calculator to sources of the assessments below, compare fuel types, electricity sources and other choices that may affect the environmental footprint and climate risks, volvogroup.com/footprintcalculator.

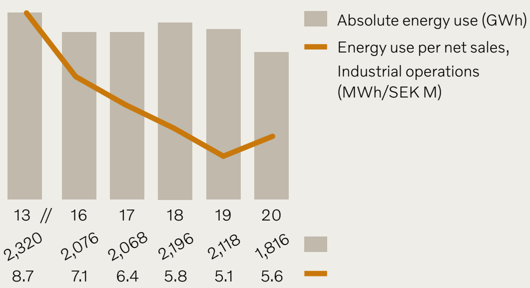
By applying LCA, a general conclusion is that the vast majority of life-cycle emissions occur during the use phase. This is particularly noticeable for traditional diesel engine drivelines. An electric driveline reduces the total lifecycle emissions, but can also shift parts of the environmental footprint to other phases depending on access to renewable energy. The Volvo Group supports customers in finding the most suitable solution for their specific transport application and market prerequisites. The main initiatives Volvo Group can utilize to support customers to reduce emissions from the use phase are:

- Reducing fuel and energy consumption in all applications.
- Enabling the use of alternative carbon-neutral fuels.
- Increasing electrified solutions where viable.

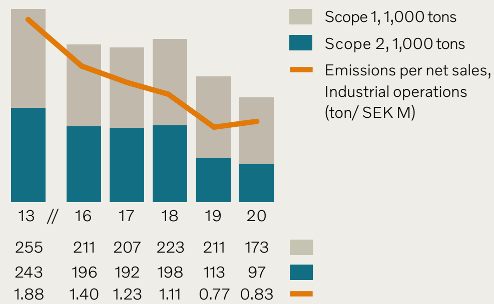
A science-based approach with pros and cons of using various fuels are available on volvogroup.com/fuels

SEGMENT	Urban delivery: 60,000 km per year		Long range: 185,000 km per year	
	VOLVO FE ELECTRIC	VOLVO FE	VOLVO FH LNG	VOLVO FH
EXAMPLE, VOLVO TRUCKS				
Life cycle CO_2-equivalent	36,600	412,000	360,000	1,080,000
Energy/fuel mix Energy per 100 km	Hydropower EU Average 104 KWh / 100 km	Diesel (B0) 41.5 l / 100 km	Liquefied biogas EUR 6 33 l / 100 km	Diesel (B0) EUR 6 33 l / 100 km
By source:				
Energy, MWh	535	1,570	6,660	4,130
Water, m^3	36,600	711	3,300	9,050
NO_x, kg	73	264	1,310	673
Materials (net), tons	3,620	1,700	6,940	3,520

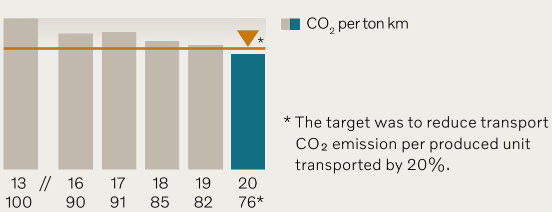
Energy usage



CO_2 emissions, Scope 1 and 2

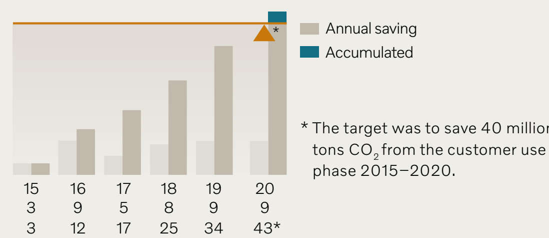


Scope 3: Freight emissions CO_2 per produced unit



* The target was to reduce transport CO_2 emission per produced unit transported by 20%.

Scope 3: Accumulated emissions savings from sold products



* The target was to save 40 million tons CO_2 from the customer use phase 2015–2020.

Reduction of energy use and emissions to air

CO_2 emissions and energy use in the operations are lower in absolute terms, and over time also in relation to net sales. A large part of the absolute reduction in 2020 is explained by the lower production levels during parts of the year due to the pandemic. At the same time, the efficiency efforts have continued.

Environmental KPIs relative to the business growth over the long term continues to improve. Compared to 2017, which was a comparable year in terms of net sales, the 2020 relative energy use (energy/net sales) was 12% lower and the relative CO_2 emissions (CO_2/net sales) were 33% lower.

Direct (Scope 1) GHG emissions
Indirect (Scope 2) GHG emissions

Metric tons x1,000	**2020**	2019[2]	2018	2017	2013[1]
CO_2e emissions scope 1	173	211	222	207	236
CO_2e emissions scope 2 Market based	97	113	198	190	243
Total CO_2e emissions, market based	**270**	**324**	**420**	**397**	**479**

1 Historical data is restated due to acquisitions and divestments.

2 2019 were the first year marked based emissions are used fully.

Sources of scope 1 and 2 emissions

Metric tons x1,000 CO_2e		**2020**	2019	2018[3]
Natural gas	Scope 1	93	111	–
Diesel	Scope 1	46	57	–
Other	Scope 1	34	43	–
Electricity	Scope 2	86	99	188
District heating	Scope 2	11	14	10
Total CO_2e emissions		**270**	**324**	**420**

3 This detailed data was not available for 2018 on scope 1.

Scope 3 emission reduction

Emissions reduction		**2020**	2019	2018	2017	2016	2015
Emissions during use of sold products, annual reduction	million tons	9	9	8	5	9	3
Emissions during use of sold products, aggregated reduction	million tons	43	34	25	17	12	3
Goods transportation, CO_2 per produced units	Index 2013	76	82	85	91	90	100

Please note the total scope 3 is not reported. This is due to lack of standards that enable comparable results within the industry. With the introduction of VECTo in the EU, a standardized simulation metric will be available for certain vehicles sold on the EU27 markets from 2021.

GHG emissions intensity

Scope 1 and 2	**2020**	2019	2018	2017	2013
Net sales, Industrial operations, SEK M	326	418	378	324	265
Products delivered, (x1,000)	267	333	299	252	280
CO_2 (scope 1 and 2) by net sales	0.83	0.77	1.11	1.23	1.88
CO_2 (scope 1 and 2) by products delivered	1.01	0.97	1.40	1.58	1.78

Nitrogen oxides (NOx), sulphur oxides (SOx), and other air emissions

Tons		**2020**	2019	2018	2017	2013
NO_x	tons	204	311	360	301	347
SO_x	tons	5.6	9.6	13.6	13.3	23.4
Solvents (VOC)	tons	1,342	1,488	2,148	1,681	2,221

WATER, WASTE AND ENVIRONMENTAL COMPLIANCE

Connection to Agenda 2030 and reporting standards

SUSTAINABLE DEVELOPMENT GOALS

Main connections to the UN SDGs and targets
6.4 Increase water use efficiency
8.4 Improve resource efficiency in production
12.2 Sustainable management of natural resources
12.4 Responsible management of chemicals
12.5 Reduce waste generation

6 CLEAN WATER AND SANITATION
8 DECENT WORK AND ECONOMIC GROWTH
12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Referenced reporting standards
GRI 303 – Water and effluents 2016
GRI 306 – (Effluents and) Waste 2016
GRI 307 – Environmental Compliance 2016

The Volvo Group's Environmental Policy is the steering document for managing risks in areas such as emissions, resource use, chemicals and residuals. It is based on the principles of life cycle management and continuous improvement.

The Group's ISO 14001 certified environmental management system covers approximately 95% of production facilities and 90% of distribution centers. The management system is used in a hierarchical way to deploy effective environmental work in the Group's divisions and business areas. This means that the business areas and truck divisions are all responsible for their environmental performance in the same way as financial or other performance. Environmental management is also part of supplier assessments, read more on page 167.

Most environmental KPIs, see also previous page, were reduced in 2020 in absolute terms and over time also in relation to net sales. A large part of the absolute reduction in 2020 is explained by the lower production levels during parts of the year due the pandemic. At the same time, efficiency work is continuously on-going.

Water

Water consumption has also been reduced in absolute terms, although not to the same extent as other environmental indicators in relation to net sales. The topic of water can be highly material for some local production facilities but less relevant for others. This means that on an aggregated level, water use and discharge is less material relative to other environmental topics. It is included in this report due to specific interest and tracking from certain stakeholders.

Water withdrawal by source

Water consumption in production	**2020**	2019	2018	2017
Total water consumption, Mega-liters	5,218	5,706	4,870	4,817
Relative water consumption, Cubic meters/SEK M net sales	16.0	13.6	12.9	14.9

At Group level, only total water consumption is available.

Waste and recycling

Volvo Group's sites either have in place or are in the process of developing landfill-free objectives. This work is supported by a directive and guidelines setting out the criteria for when a Volvo Group site can be considered a landfill-free site.

The reduction of waste sent to landfill is largely due to a reclassification of the foundry sand from the operation Skövde, Sweden. This is from 2020 classified as non-metal recycling.

The hazardous waste fraction includes waste from a soil remediation project executed at the foundry operation in Skövde, Sweden.

Waste by type and disposal method

Metric tons	**2020**	2019	2018
Recycling, metal scrap from operations	84,880	107,004	97,691
Recycling, other metal scrap	13,322	18,634	18,868
Recycling, non-metal	141,620	133,297	119,358
% recycling of total	*86%*	*76%*	*75%*
Composting	1,865	2,315	2,524
Incineration with energy recovery	18,387	29,258	32,920
% recycled, composted or energy recovery	*93%*	*85%*	*86%*
Incineration without energy recovery	1,644	2,222	2,598
Treatment by professional waste contractor	9,945	19,594	15,153
Landfill	6,076	26,839	24,202
Landfill, only inert material	694	2,571	699
Total residuals	**278,433**	**341,734**	**314,013**
Whereof hazardous wastes	**51,806**	**51,024**	**38,601**

Materials of concern

Some of the materials used in Volvo Group's products come in scarce supply and some materials and substances are potentially hazardous. The Group works to reduce its dependency on such materials and substances with the aim to protect both people and the environment and to secure sustainable supply. In collaboration with partners, the Volvo Group proactively evaluates alternatives in the design and supply processes to minimize and eliminate use of scarce materials and substances of concern.

Scarce materials may lead to a variety of difficulties such as high prices and increased risk for corrupt behavior or adverse human rights impacts when sourced from high risk areas. Volvo Group is implementing a dedicated supplier Sustainable Minerals Program, currently focusing on tin, tungsten, tantalum, gold and cobalt, to support sourcing of materials in a responsible way. The program is built on the five step framework of the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas, as well as on the tools of the Responsible Minerals Initiative, to which the Volvo Group is a member.

Environmental compliance

No significant environmental incidents or spills were recorded during 2020. In 2020 the Volvo Group had 12 licensed facilities in Swede. For some facilities the environmental permits are under review due to planned changes.

Employees and development

Connection to Agenda 2030 and reporting standards

SUSTAINABLE DEVELOPMENT GOALS

Main connections to the UN SDGs and targets

4.3 Equal access to affordable, technical, vocational and higher education
4.4 Increase the number of people with relevant skills
5.1 End discrimination against women and girls
5.5 Ensure women's full participation in leadership and decision making

4 QUALITY EDUCATION
5 GENDER EQUALITY

Referenced reporting standards

GRI 401 – Employment 2016
GRI 402 – Labor management relations 2016
GRI 404 – Training and education 2016
GRI 405 – Diversity and equal opportunities 2016

The Volvo Group Code of Conduct is the foundation for responsible business conduct that builds trust with stakeholders in societies where the Group operates. As an integral part of daily operations, the leaders of Business Areas, divisions and functions are accountable for areas such as employment practices, labor relations, people development and diversity. To do this effectively, they are supported by both local and central HR professionals, expertise and leadership. In addition to the topics listed herein, different countries, regions and units may address specific areas in line with the local context and needs.

EMPLOYMENT

The Group's employees are its most valuable asset and to provide safe and engaging workplaces where people can grow is an essential focus area for the Volvo Group. The strategy is to invest in people, to grow talent, and to create an inclusive and people centric culture where everyone is encouraged to contribute.

The collected efforts have resulted in high rankings in global employer branding surveys. In 2020, the Volvo Group was ranked as number 20 of the world's best places to work by Fortune and World's Best Workplaces™.

During 2020, the Volvo Group, like many other companies worldwide, faced an unprecedented situation because of the Covid-19 pandemic. The Volvo Group has put in extensive measures to maintain its operations and employment resulting from the effects of the Covid-19 pandemic. By using short-term-layoff programs or similar schemes the Group tried to avoid the most severe social impacts to individuals and retain employment.

New employee hires and employee turnover

Employee turnover[1], %	**2020** Year of age and total			2019 Year of age and total		
	<40	40+	All	<40	40+	All
Europe	**10**	**7**	**8**	**9**	**6**	**7**
Men	*10*	*7*	*8*	*9*	*6*	*7*
Women	*10*	*7*	*8*	*8*	*6*	*7*
North America	**35**	**20**	**25**	**13**	**7**	**9**
Men	*36*	*21*	*26*	*13*	*7*	*9*
Women	*32*	*17*	*22*	*13*	*7*	*9*
South America	**16**	**19**	**17**	**9**	**8**	**9**
Men	*15*	*18*	*16*	*10*	*10*	*9*
Women	*18*	*24*	*19*	*9*	*8*	*9*
Asia/Pacific	**10**	**9**	**8**	**10**	**6**	**7**
Men	*10*	*8*	*7*	*10*	*5*	*6*
Women	*14*	*11*	*11*	*12*	*7*	*9*
Africa	**13**	**12**	**12**	**14**	**8**	**11**
Men	*13*	*13*	*13*	*15*	*8*	*12*
Women	*11*	*10*	*11*	*12*	*7*	*10*
Group total	**15**	**10**	**12**	**10**	**6**	**7**
Men	*15*	*10*	*12*	*10*	*6*	*7*
Women	*15*	*10*	*12*	*9*	*6*	*8*

1 The total employee turnover rate is the proportion of employees who left Volvo Group both voluntary (such as retirements and resignations) and involuntary (including due to redundancy).

New hires	**2020**			2019		
	<40	40+	All	<40	40+	All
Europe	**1,514**	**621**	**2,135**	**2,820**	**1,240**	**4,060**
Men	*1,115*	*468*	*1,583*	*2,115*	*957*	*3,072*
Women	*399*	*153*	*552*	*705*	*283*	*988*
North America	**1,161**	**750**	**1,911**	**898**	**543**	**1,441**
Men	*909*	*558*	*1,467*	*670*	*412*	*1,082*
Women	*252*	*192*	*444*	*228*	*131*	*359*
South America	**640**	**95**	**735**	**885**	**196**	**1,081**
Men	*496*	*80*	*576*	*706*	*170*	*876*
Women	*144*	*15*	*159*	*179*	*26*	*205*
Asia/Pacific	**830**	**89**	**919**	**1,201**	**189**	**1,390**
Men	*695*	*66*	*761*	*954*	*142*	*1,096*
Women	*135*	*23*	*158*	*247*	*47*	*294*
Africa	**55**	**9**	**64**	**126**	**23**	**149**
Men	*39*	*9*	*48*	*80*	*12*	*92*
Women	*16*		*16*	*46*	*11*	*57*
Group total	**4,200**	**1,564**	**5,764**	**5,930**	**2,191**	**8,121**
Men	*3,254*	*1,181*	*4,435*	*4,525*	*1,693*	*6,218*
Women	*946*	*383*	*1,329*	*1,405*	*498*	*1,903*

However, the Group had already started adjusting its activity levels by using its structural flexibility, terminating temporary and consultant contracts during 2019. During the second half of 2020, the Group started to further decrease resources to adjust to lower activity levels. In parallel, the Group is accelerating the competence shift needed for the development of new technologies and business models.

Over time, the Volvo Group has developed pragmatic solutions and ways of working to adjust according to changing demands. The Volvo Group works in close dialogue with employee representatives for the deployment of solutions that help to maintain and strengthen the competence needed for the Volvo Group as well as reducing negative social consequences. This can include utilizing time-banks to reduce labor time, furlough, re-skilling or upskilling for continued employability, early retirement, financial compensation, internal mobility programs and outplacement via third parties.

LABOR AND MANAGEMENT RELATIONS

The relations between the company and employees, including employee representatives and unions, is based on honesty, transparency, fairness and creativity. These basic principles were jointly developed with the Global Works Council members and guide how we act together when maneuvering the Volvo Group through necessary business changes. One cornerstone in this relationship is the yearly Volvo Global Dialogue in which about 50 employee representatives from over 20 different countries meet with the CEO and the Volvo Group Management members to discuss the current business situation and strategic initiatives of the Group, but also specific future opportunities in respect of new business areas, digitalization and needed competence shifts.

In 2020, for the first time, this event was held virtually due to the specific pandemic circumstances. In parallel, the Global Works Council and European Works Council meetings are normally held to facilitate reoccurring social dialogue. Due to travel and meeting restrictions respecting the Covid-19 situation, these meetings were not conducted in 2020. However, several virtual meetings were held between Executive Board Members and the European and Global Works Council to maintain a close dialogue and collaboration.

Three ordinary and two deputy members appointed by employee organizations are part of the AB Volvo Board of Directors.

Process regarding operational changes

Prior to major organizational changes, the employee representatives and relevant authorities are informed and consulted in accordance with legal and contractual requirements. In 2020, the Group conducted 13 information meetings with the European Works Council, complemented by 178 meetings with local employee representatives and unions in different countries to consult on changes and their specific impact on a local level.

An estimated 44% of employees around the world are members of an independent trade union. Approximately 75% of employees in 23 different countries are covered by Collective Bargaining Agreements. This shows a significant higher union density rate or coverage of collective bargaining than the average compared to the International Labor Organization statistics in our major markets like Sweden, the US, Japan, Poland and Brazil.

TRAINING AND EDUCATION

Individual and organizational learning is essential for the Volvo Group and for employees. Learning helps the Group to perform current business operations and to transform for the future. From the employees' perspective, learning is also an integral part of development and growth. The Group drives scalable learning and competency development via its own corporate campus – the Volvo Group University (VGU). VGU is responsible for the design, development and delivery of trainings, thereby ensuring that high quality trainings are easily and widely accessible. To create the best learning experience, a wide variety of formats are used, e.g. online, on-site, on stage and face-to-face or virtual classroom training as well as videos and games. All VGU training programs are managed in a personalized and collaborative learning portal that supports competence development and engages employees in their learning journey.

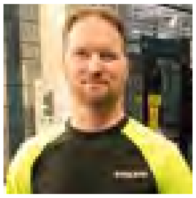
Programs for upgrading employee skills and transition assistance programs

The Group offers programs specifically designed for roles that require upgraded skills or that will be transitioned over time. For example, a wide curriculum on electric vehicles targeting engineers, workshop operators and other relevant work roles and several programs on Artificial Intelligence (AI) has been deployed over the last few years.

In addition to programs facilitated by VGU, the Group's operations manage vocational training in different parts of the world focusing on practical skills for production operators or workshop technicians.

The Future Industrial Worker

The ongoing transformation of industry requires new skills, competencies and ways of working. Volvo Group Trucks Operations – employing a significant part of the production staff across the Group – is leading the work to predict future needs for employees and the organization. Three pilot projects have showed that competence development is key, as anticipated, but there is not one single simple solution. The work includes learning about what roles we should have, how we should work with flexibility and what skills are needed for the future industrial workers. Lessons from the pilot areas will be disseminated to other parts of the organization and the Volvo Group works closely with the unions around the Group to spread lessons learnt about competence development, quality instructions, repair and maintenance.



Klas Grenabo is one of the employees at the plant in Skövde, Sweden, taking part in establishing the future industrial worker. "We have set our goals and vision for our work. It is very exciting to be included from the start and to create our vision for the future".

Vocational training is an important factor in driving prosperity. In addition to training for employees and distributors, the Group initiates, supports or runs vocational training programs across the world focusing on practical skills for mechanics, bus or truck drivers and machine operators. Volvo Group specialists can be directly involved as teachers or trainers and in some countries the Group cooperates with technical colleges and universities.

In several markets, the Volvo Group and its customers have experienced a mismatch between skills and business needs. In many of these markets the Volvo Group therefore works together with national and international aid agencies to provide the education needed for increasing employment and opportunities for people to be self-sufficient.

Strengthening the employability of Moroccan youth

ACCES (Académie de Conduite de Camions En Sécurité) was created in 2018 in Casablanca, Morocco. Located within an existing vocational training center in the industrial hub of Casablanca, ACCES provides specialized training in driving buses and trucks to professional drivers as well as Moroccan youth interested in pursuing a career in the road transport sector. Over four years (2018–2022), ACCES aims to train around 500 professional drivers in a wide range of critical subjects, such as safe and fuel-efficient driving for different types of trucks and buses. As a result, ACCES seeks to contribute to the objectives of the Moroccan government by upgrading the skills of professional drivers while strengthening the employability of Moroccan youth in the transport sector. ACCES is the result of a partnership between the Government of Morocco, the United States Agency for International Development (USAID), Volvo Group, and the United Nations Industrial Development Organization (UNIDO). Volvo Group provides training vehicles, equipment, and teacher training. Volvo Trucks, Volvo Buses and Renault Trucks are all cooperating on the training program.

DIVERSITY AND EQUAL OPPORTUNITIES

Diversity drives performance by enriching creativity, encouraging innovation and improving decision making. Following the decentralized model within the Volvo Group, the responsibility for promoting diversity belongs to each part of the organization.

The Volvo Group has been working systematically with diversity and inclusion for over a decade. The work includes a wide range of aspects, such as culture, generations, background and gender. It also includes facilitation and support of networks for employees on sexual orientation and gender identity, as well as employees with special needs. The overall ambition is to attract a wide range of people, to grow and develop them and attain the skills and competencies needed for today as well as for the future. The Group has established targets to increase gender diversity in management positions, in graduate programs and training programs. This overall approach also spreads to other areas such as vocational training programs in local communities. One of the overall aims is that management and workforce reasonably reflect the diversity of the regions and businesses of the Volvo Group.

To maximize the positive effects of diversity and inclusion, the leaders and team members of each business area and function are responsible for making it an integral part of their daily operations. Different countries, regions and units may have different diversity challenges, leading to local and business specific diversity goals and actions.

On the corporate level, the Volvo Group follows age and gender as key indicators of diversity. The total gender balance is assessed as a total of the workforce, for line management positions and at the senior management level, as described in the gender diversity table below. The Volvo Group's ambition is to reach 35% women employees by 2030, in general and in management positions.

Diversity of governance bodies and employees

Age diversity of the Volvo Group workforce, %	**2020 <40 / 40+**	2019 <40 / 40+	2018 <40 / 40+
Europe	36 / 64	37 / 63	38 / 62
North America	33 / 67	34 / 66	34 / 66
South America	61 / 39	59 / 41	60 / 40
Asia / Pacific	51 / 49	44 / 56	45 / 55
Africa	54 / 46	56 / 44	58 / 42
Group average	**40 / 60**	**40 / 60**	**41 / 59**

Gender diversity of the Volvo Group workforce, %	**2020 Women / Men**	2019 Women / Men	2018 Women / Men
Europe	21 / 79	21 / 79	21 / 79
North America	21 / 79	14 / 86	20 / 80
South America	17 / 83	17 / 83	16 / 84
Asia / Pacific	14 / 86	14 / 86	14 / 86
Africa	24 / 76	24 / 76	21 / 79
Group average	**19 / 81**	**19 / 81**	**19 / 81**

Gender diversity over time, share of women, %

	2020	2019	2018	2017	2016	2015
All employees	19	19	18	19	18	18
Manager (all levels)	20	20	19	19	18	18
Presidents and other senior executives	26	26	25	25	24	22
AB Volvo Board (excluding deputies)	36	40	40	36	36	33

Safety

OCCUPATIONAL HEALTH AND SAFETY

Connection to Agenda 2030 and reporting standards

Main connections to the UN SDGs and targets
3.3 End epidemics of communicable diseases
8.8 Promote safe working environments

Referenced reporting standards
GRI 403 – Occupational health and safety 2018

The health, safety and wellbeing of employees and business partners is always the first priority of the Volvo Group. Health and safety are material issues in several aspects of Volvo Group's direct operations as well as in activities that occur along the value chain. The Volvo Group Health and Safety Policy gives direction on how workplace safety, health and wellbeing shall be handled within the Group. The policy covers both direct employees and consultants.

During 2020 Volvo Group, similar to all other organizations around the world, had to respond to the Covid-19 pandemic. Protecting the health, safety and wellbeing of all our colleagues has been and remains the priority. The Volvo Group took action at sites, across operating countries and at the Group level. Many workplaces and activities were adapted to help colleagues keep safe. Communications and education campaigns about health and wellbeing were introduced across the Group.

Some teams across the Group have progressed further with developing proactive approaches towards mental health and wellbeing, raising awareness and ensuring adequate support is available. The Group's work in this area will extend well beyond the pandemic. Examples of workplace adaptations focusing on both mental and physical health during the Covid-19 situation are highlighted on page 35.

Arrangements for health and safety have continued to strengthen across the Group
Safety is one of the centerpieces of the Volvo Group's strategy. During the year the Group has continued safety awareness campaigns and increased focus on safety leadership. There is a clear expectation of being even more proactive in managing risks across our activities, in sharing good practice and recognizing the successes that help create good and productive places to work.

Across Volvo Group teams investigate accidents leading to lost time. During the year the Group continued to focus on preventing serious and fatal incidents with targeted approaches towards high risk activities.

Safety is the first item on the agenda of business review meetings with all business areas and their units. Throughout 2020, we have emphasized how health, safety and wellbeing is Volvo Group's first priority and communicated this widely by senior leaders across the Group. Within the Group, a global network of over 200 expert practitioners on Occupational Health and Safety – including doctors, nurses, safety engineers, psychologists, and ergonomists collaborate to find and share best practices.

Occupational health and safety management system
Each business area is accountable and responsible for managing health, safety and wellbeing. Volvo Buses and Volvo Construction Equipment have continued to certify their parts of the management systems according to OHSAS 18001 or ISO 45001. Others have been developing internal safety management systems with regular assessments and coaching as an integral part the Volvo Group Management System (VGMS) and Volvo Production System (VPS). This helps to ensure that there are written procedures, internal controls, clear ownership and management review, and that deviations are acted upon. The scope of prevention work includes both physical and psychological health, and workplace safety. It covers all employees working for Volvo Group on- or off-site, as well as the period of time spent commuting to and from work.

Hazard identification, risk assessment and incident investigation
Volvo Group and its subsidiaries apply tools and processes to manage risk and create productive working environments. Risk assessments are carried out on a regular basis at all levels from shop floor to office. Health and safety professionals ensure the quality of risk assessments and involve line management and union representatives in this work. Potential risks are in focus during internal assessments and external audits, where typically a sample of risk assessments and corrective and preventative actions are reviewed. Managers and employees are reviewed in their knowledge of their own major risks. Measures to mitigate or eliminate the identified risks are defined and implemented, and risk assessments are reviewed and updated periodically or after any incident has occurred. Recordable accidents are reported and followed up at the unit level and further up in the organization, continuing up to the Group level. Investigations resulting in corrective and preventative actions must be deployed after each recordable accident. In cases where the issue is linked to risks that may be relevant for other units – the causes of the accident and the corrective and preventative measure to avoid a repeat are shared with other relevant units within the global health and safety network. In certain cases, directives are built to be deployed throughout the company as part of a preventative measure.

Based on the risk assessment carried out for a specific machine, process or work area, employees receive training so they understand the risks and how to manage them – through following defined procedures or wearing personal protective equipment, for example. When defining corrective or preventative actions in response to identified risk, the Volvo Group Health and Safety Policy requires that the hierarchy of control measures principles be applied. The first option is hazard elimination. If hazard elimination is not possible, substitution, engineering controls, administrative controls and personal protective equipment are applied. The policy is distributed and made visible on the walls of factories and offices within the company.

Employees are asked to report accidents, incidents and unsafe acts and conditions – as they are a vital source of improvements and highlight opportunities to better control the associated risk. The Volvo Group's Code of Conduct and related processes make it clear that any management reprisals against individuals making such reports in good faith are not tolerated. In the unlikely event that a manager or colleague acts against the Code of Conduct – a whistle blower process can be used to escalate this.

Health and safety coordinators are employed to support team leaders and managers in the organization. Periodic training is also organized on health and safety procedures, roles and responsibilities for managers and health and safety coordinators.

Occupational health services

Occupational health services are provided to employees at most units and vary from one country to another depending on the specific needs of the unit, the level of health service provided and local legislation. In many countries and locations, health services are supported by company doctors and nurses, psychologists, physiotherapists and ergonomists.

In some countries/organizations such services can be supplied by third parties. If so, they are required to ensure data privacy in accordance with applicable regulations. Occupational health services play a major role in health promotion. These service providers manage confidential databases and can help to provide anonymized reports about relevant health aspects – diabetes, cardiovascular disease, stress levels, etc. – to implement relevant preventive and corrective actions. They contribute significantly to training and webinars, and provide support to individuals, teams and organizations. They stay current in their fields of knowledge to be on the forefront of new initiatives for the Volvo Group.

Worker participation, consultation and communication on occupational health and safety

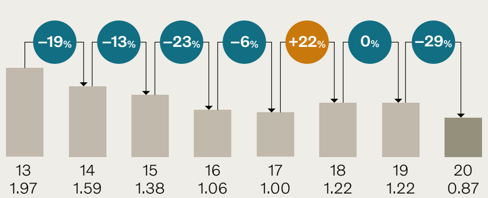
Worker representatives are appointed to health and safety committees by employees. Depending on the type of business area, health and safety committees operate on the factory level, retail office level or unit level. The main objective of the committees is to bring together worker and management representatives, define actions and jointly agree on measures needed to improve health and safety performance. Committees meet on a regular basis and decisions taken shall be communicated to the workforce, acted upon and followed up. The committees could also be involved in accident and incident investigations and support in additional corrective or preventative measures.

Worker training on occupational health and safety

All employees and consultants are provided health and safety training as well as other Code of Conduct training as part of their induction training.

Rates of injury and number of work-related fatalities 2013-2020

Lost time accident rate (LTAR) per 200,000 worked hours.



Number of accidents with lost time	686	1.109	980	809	789	972	1004	656
Number of fatalities Employees	1	3	0	0	3	1	0	0
Number of fatalities Contractors	0	0	0	0	0	2	0	0

More specific training is provided depending on the job responsibilities. Specific training for potentially hazardous jobs – such as working with electricity or hazardous substances, at heights and in high heat conditions – is mandatory for employees working in these environments, and needs to be repeated on a regular basis. All trainings are provided during working hours. The effectiveness of these trainings is assessed locally depending on each organization and country.

Promotion of worker health

The Volvo Group has for a long time provided various health promoting activities beyond occupational safety. These programs are often provided by external partners. Health promotion programs may cover topics such as preventing communicable diseases, substance abuse, obesity, healthy lifestyle, physical exercise, nutrition, sleep and stress management. The psychological work environment is growing in focus, and many tools are available to support in preventing issues and promoting good mental health. There are various types of tools that can be used depending on specific and individual needs. The confidentiality of individuals is protected in line with general data privacy laws. Throughout the year many countries have used pulse surveys and engagement tools to understand attitudes and feelings in general, and in particular to a shift where work-life is affected by remote work and social distancing. This approach has been useful and actions have been taken in response.

Prevention and mitigation of occupational health and safety impacts directly linked by business relationships

In accordance with the Volvo Group's Supplier Code of Conduct, on-site audits are performed at suppliers on a wide variety of sustainability topics. Health and safety are central elements to this process. Read more about this on page 167 – Supplier social assessments.

Occupational safety, as well as road safety, are central elements in the Group's offer to end-users. The Volvo Group provides customer solutions and training to increase safe behavior and safe product use. Please read more about customer health and safety on next page.

Workers covered by an occupational health and safety management system

The Volvo Group Management System includes health and safety management based on legal requirements and covers all employees and consultants, and these are all included in the safety reporting presented below.

The percentage of employees and consultants who have been covered by an internal audit cannot be reported for the previous year. The data was not available.

By December 2020, over 60 sites covering around 30% of Volvo Group's employees have chosen to certify their operations according to OHSAS 18001 or ISO 45001. Volvo Buses and Volvo Construction Equipment are two business areas that have chosen to certify their entire operations.

Work-related injuries

Volvo Group measures the accident and accident rates in all locations including plants, workshops and offices in all countries of operations. In 2020, the accident rate was 0.87 per 200,000 worked hours. The reduction in both accidents and improvement of accident rates may partly be linked to the different ways of working and a general lower activity level in production during parts of the year. Consultants are not separately reported but are included in the figures along with all of the Volvo Group's employees. Health and safety data is collected quarterly at the Group level and on a monthly basis by several business areas and truck divisions.

High-consequence or serious work-related injuries and related hazards are not consolidated at Group level but are shared in health and safety networks to spread learnings and best practices sharing.

CUSTOMER HEALTH AND SAFETY

Connection to Agenda 2030 and reporting standards

SUSTAINABLE DEVELOPMENT GOALS

Main connections to the UN SDGs and targets

3.6 Halve road traffic accidents
8.8 Promote safe working environments
11.2 Provide access to safe, affordable and sustainable transport systems for all, improving road safety.

3 GOOD HEALTH AND WELL-BEING
8 DECENT WORK AND ECONOMIC GROWTH
11 SUSTAINABLE CITIES AND COMMUNITIES

Referenced reporting standards
GRI 416 – Customer health and safety 2016

Volvo Group has a value chain approach to customer health and safety that considers the effects on both customers, end users and indirect stakeholders. The Group's business and the products it offers target a wide range of application areas and impact many categories of people, such as drivers and operators, commuters, as well as other traffic system users like cyclists and pedestrians.

The vision is zero accidents with Volvo Group products, and the offering of world-leading products and solutions for sustainable transports is in important part of getting closer to our vision.

Every year, 1.35 million people lose their lives in road traffic accidents worldwide, and many million are seriously injured. In addition, there are occupational health and safety risks in and around vehicles and machines, both on the road and in construction and work sites. Issues such as noise and air pollution are also considered in customer health and safety.

A holistic approach means addressing all these concerns in a proactive and systematic way. Volvo Group works systematically with in-depth accident research to understand the context and challenges facing customers in their operations. This knowledge is then the basis for the Group's product development. Volvo Group also work with partners in academia and policy makers to gain knowledge and strives to accelerate progress in road traffic safety to enable safer solutions to be brought to the market. Designing the best solutions to address these global health and safety challenges is delivering both on the Volvo Group's commitment to the Sustainable Development Goals and to offer the most competitive solutions to customers and business partners. The knowledge gained on safety is shared via communication and training programs in many markets where the Group operates to raise awareness of key safety concerns such as speed, seat belts and alcohol.

Assessment of the health and safety impacts
All product lines are carefully assessed for health and safety impacts. This is a key competitive advantage of the Volvo Group. Such assessment can include product assessments, audits of different processes in the design, development, production and use phases, as well as research investigations from real accidents. Please read more on volvogroup.com/safety.

SITIS – Sweden-India Transport Innovation and Safety Collaboration (SITIS)
SITIS was launched in Stockholm in connection with the UN Road Safety Conference in February 2020 and as a direct outcome of a Joint Declaration on Sweden-India Innovation Partnership for a sustainable future agreement.

Robust and relevant data is going to be a key factor behind future safety initiatives that would be deployed to reduce fatalities on Indian roads. As part of an ongoing project, one of the bus lanes operating in Bengaluru, India, has been equipped with cameras, sensors, logging equipment capturing the surroundings outside as well as what happens inside the bus. Data is processed to analyze and build insights in order to characterize the Indian traffic conditions as well as driver behavior. In phase two of this project, buses will be further equipped with radar systems and equipment that monitors weather, air quality and various other parameters.

In October 2020, SITIS held a virtual three-day Vision Zero Academy training program for senior transport and highway officials across India. The program was facilitated by the Swedish Transport Administration (Trafikverket) and Automotive Research Association of India.

SITIS is one of the largest collaborations in the road safety arena – involving a range of Swedish and Indian companies such as Autoliv, Ericsson, Manipal Hospitals, Altair, Saab, Tech Mahindra and Volvo Group, as well as universities and research institutes from both countries.

Human Rights

Connection to Agenda 2030 and reporting standards

Main connections to the UN SDGs and targets

5.1 End discrimination against women and girls

8.7 Take immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking

8.8 Protect labor rights and promote safe and secure working environments for all workers

Referenced reporting standards

GRI 406 – Non-discrimination 2016
GRI 407 – Freedom of association and collective bargaining 2016
GRI 408 – Child labor 2016
GRI 409 – Forced or compulsory labor 2016
GRI 412 – Human rights assessments 2016

UNGP Reporting framework

The Volvo Group is committed to respecting human rights. Negative human rights impacts may potentially materialize not only within the Group's own organization, but also through the Group's business relationships and in the value chain. This includes colleagues in our operations, people in neighboring communities, suppliers, business partners and others potentially impacted by the use of our products and solutions. The Group continues to strengthen and align its human rights work with the following international frameworks that we recognize and support:

- UN International Bill of Human Rights.
- ILO's eight fundamental conventions.
- UN Global Compact.
- UN Guiding Principles on Business and Human Rights.
- OECD Guidelines for Multinational Enterprises.
- Children's Rights and Business Principles.

These frameworks provide support and guidance in contexts with elevated human rights risks and where local regulations are sometimes insufficient or inadequately enforced. The Volvo Group reports on its human rights-related work under applicable laws and regulations, including national laws under the EU's non-financial reporting directive and the UK Modern Slavery Act. In 2020, we published Modern Slavery Statements for relevant companies within the Group.

The year 2020 was marked by Covid-19 and as a result demand and business activity levels were impacted. The Group's primary focus has been to ensure the health, safety and well-being.

Respect for human rights in strategy and governance

The Group's commitment to respect human rights is an essential part of the Volvo Group's Sustainability Strategy. The Group's human rights governance includes cross-functional governance forums and working groups, steered by a human rights board with relevant members from our Executive Board. In 2020, we initiated work to formalize and strengthen our human rights program and plans.

Group functions such as Corporate Responsibility, Legal and Compliance and Human Resources, together with the Group's Truck divisions and Business Areas, identify, assess and monitor human rights-related risks within our operating environment through human rights due diligence, our enterprise risk management process, dialogues with unions, inputs from the Volvo Group Whistle mechanism and collaboration with peers and others. Volvo Group's human rights due diligence and mitigation efforts takes into account, country specific human rights risk levels, inherent risks in certain purchasing categories and sales segments and potential concerns brought to our attention by internal and external stakeholders.

Policy commitment

The Volvo Group Code of Conduct, Supplier Code of Conduct and other relevant Group-level policies and directives reflect our commitment to respecting human rights. Through these guiding documents, we set and communicate our expectations on mutual respect, non-discrimination, safe and healthy workplaces, freedom of association and collective bargaining, working hours and compensation and zero tolerance for all forms of modern slavery and child labor. We consider these the most relevant human rights issues for the Volvo Group currently and continue to identify any other issues that may become relevant. These topics are also part of the mandatory training for all employees on the Volvo Group Code of Conduct. See page 169 for more information about the Code of Conduct and associated training.

Human rights reviews in our own operations

We carry out human rights reviews in our own operations as part of our overall due diligence work along the value chain. These reviews aim to identify actual and potential adverse human rights impacts on employees, consultants and on-site service providers. It typically involves desktop reviews of country and sector human rights risks, self-assessments and in-person workshops with the local management and human resources personnel, in-person discussions with employees, on-site service providers and their employees, union representatives and also, if relevant, potential in-person discussions with other stakeholders. It is adapted to reflect the needs and risks of the country being reviewed. The findings of each country-level human rights review are communicated to relevant members of the Executive Board. Following each human rights review, action plans for identified improvement areas are created with clear ownership and anchoring within the local management. We strive to align our human rights review methodology with the UN Guiding Principles on Business and Human Rights while also taking into account Volvo Group's global and local operating structures.

One focus area in 2020 was to clarify human rights review processes and methodology as well as follow up on findings from previous human rights reviews in India (2017), South Africa (2018), and Mexico (2019) with the local management. The Group is planning for remote human rights reviews, taking into account an expected continuation of travel and meeting restrictions due to the Covid-19 pandemic.

Human rights due diligence in the supply chain

The Volvo Group's Supplier Code of Conduct sets not only the minimum requirements, but also the aspirations for suppliers in the areas of human rights and working conditions, health and safety, responsible sourcing of raw materials, environmental performance and business ethics. Despite the global pandemic affecting our ability to visit suppliers, we continued to develop and implement our Sustainable Minerals program.

More on this and a summary of findings is available in the Supplier assessment section on the next page.

Strengthening human rights capacity with strategic business partners

In addition to our owned manufacturing operations, the Volvo Group collaborates with private business partners to assemble trucks in certain locations in Africa and Asia, and build bus bodies on our chassis in line with customer requirements globally. Our human rights plan for truck assembly partners includes strengthening contractual provisions with human rights requirements, risk assessments including onsite visits, and training and raising awareness on human rights.

Grievance channels and access to remedy

Our employees and external stakeholders have the possibility, to the extent permitted by local laws, to report any instances of human rights violations in connection with the Volvo Group or breach of our Code of Conduct through internal and third-party hosted publicly available grievance channels. See page 169 for more information on our grievance channels and the types of concerns reported in 2020.

Specific Global Reporting Initiative topic-related disclosures

Non-discrimination

The Volvo Group assesses risks related to discrimination as part of its overall human rights due diligence in its own operations and the supply chain. In 2020, 34 allegations perceived as related to discrimination or harassment were reported via the Volvo Group Whistle, included in the category Workplace Management on page 169. All reports were investigated. Approximately half of the reports were not substantiated. Disciplinary measures were taken in the substantiated cases, supported by trainings or changes to processes and routines.

Depending on the situation, specific actions are designed and applied. The Volvo Group provides awareness trainings to prevent harassment and discrimination. This is done with the Volvo Group Code of Conduct as the core foundation. In addition, special courses about prevention from harassment and discrimination are offered for managers in some jurisdictions, for example the training Civil Treatment for Leaders in the US.

Freedom of association

Legal compliance is the foundation for Volvo Group's activities globally. Varying country legislation on union independence means the approach to managing freedom of association and collective bargaining may differ from one case to another. The Volvo Group clearly states, in the Code of Conduct, that we respect the right of all employees to form and join an association to represent their interests as employees, to organize, and to bargain collectively or individually, as well as the right to refrain from joining a union.

The Volvo Group assesses risks related to freedom of association and collective bargaining as part of its overall human rights due diligence in its own operations and in the supply chain. Human and labor rights issues, as well as other relevant questions can also be raised in the Volvo Global Dialogue, which is a forum including employee representatives across the globe and Group management. Please refer to page 160 for details on labor management relations.

Our Supplier Code of Conduct requires suppliers to respect their employees' right to freedom of association and their right to collective bargaining. It also provides that where local law sets restrictions on the right to freedom of association and collective bargaining, the supplier shall allow alternative forms of worker representation, association and bargaining.

Child labor

The Volvo Group assesses risks related to child labor as part of its overall human rights due diligence in its own operations and in the supply chain. In 2020, no cases of child labor were identified at own operations or in supplier sustainability audits.

Forced or compulsory labor

The Volvo Group assesses risks related to forced and compulsory labor as part of its overall human rights due diligence in its own operations and in the supply chain. In 2020, no cases of forced or compulsory labor were identified at own operations or during supplier sustainability audits.

RESPONSIBLE SALES

The Volvo Group has processes and policies in place with the aim to ensure that our business is conducted in compliance with applicable laws and regulations, including sanctions and export control regimes. In addition, we assess certain sales deals for risks related to human rights, environmental factors, and business ethics as part of knowing the customer or end-user. These are primarily carried out in connection with direct sales, involving customer finance and support from export credit guarantees. In line with our internal policy on military sales, we make extended assessments of proposed sales. In 2020, we continued our work to improve the methodology and scope of these assessments.

We identify sustainability risks through credible tools when performing these assessments. Identified findings are assessed, described and escalated to relevant forums within business areas or Group functions. Mitigation actions typically include engagement with our customers on the findings with the aim to support them to mitigate identified risks. If the risks are considered high or difficult to mitigate, we may decide not to proceed with individual sales deals. In our assessments, we consider country risk levels, customer segments, end-users and potential end-use of our products. Our business areas have the responsibility to perform these assessments, with support from Group functions when needed.

In 2020, Volvo Trucks, Renault Trucks, Volvo Construction Equipment and Volvo Buses assessed approximately 85 sales deals, involving customer financing and sales to certain high-risk markets. Some of these assessments identified issues related to potential adverse impacts on the environment and communities, lack of respect for human and labor rights, poor employment conditions, occupational health and safety, and unethical business behavior. Group functions also assessed approximately 40 potential transactions to selected military and government end-users in various countries in line with our internal policy on military sales. Volvo Construction Equipment and Volvo Buses also continued to raise awareness among its customer finance personnel across all sales regions.

Suppliers

SUPPLIER SOCIAL AND ENVIRONMENTAL ASSESSMENTS

Connection to Agenda 2030 and reporting standards

Main connections to the UN SDGs and targets
8.8 Protect labor rights and promote safe working environments
12.4 Responsible management of chemicals and waste
13.3 Knowledge and capacity building to meet climate change mitigation

Referenced reporting standards
GRI 414 – Supplier social assessment 2016
GRI 308 – Supplier environmental assessment 2016

The Group relies on a global network of supply chain partners to innovate, produce and deliver parts, systems or complete solutions for the product and services offered by Volvo Group. A global supply chain can mean a range of environmental and social risks. The on-going digitalization, automation and electrification in the transport and infrastructure industries also increases use of new and potentially scarce materials as well as reliance on new suppliers and associated risks.

The Supplier Code of Conduct outlines the minimum requirements, which suppliers shall comply with in the areas of human rights, working conditions, health and safety, responsible sourcing of raw materials, environmental performance and business ethics. It also includes aspirations through which suppliers are encouraged to go beyond the basic requirements to further advance sustainable performance and impact in the areas covered by the Volvo Supplier Code of Conduct.

The supplier screening and auditing is centrally coordinated by Volvo Group Purchasing and covers tier one suppliers. A risk-based approach is used to prioritize screenings and audits. Prioritization is made by reviewing risks by country or market, commodities, processes or work areas of the suppliers. In addition to this overall risk mapping, environmental, human rights and other social risks can be flagged during any type of supplier audit, training or visit. For this purpose, the Volvo Group carries out most audits and reviews with internal resources with a shared responsibility between procurement staff and specialized auditors, whose tasks it is to ensure that proper actions are taken to resolve identified gaps.

Screenings are done from desktop studies using Volvo Group's internally developed risk tool and external risk heat maps, in combination with supplier self-assessments. Auditing of suppliers is traditionally carried out at suppliers' locations by Volvo Group specialists. The Code of Conduct audit procedure is based on a checklist with questions focusing on a wide range of aspects, such as human rights, working conditions, environment and business ethics. The responsibility of improvements and corrective actions always lies with the suppliers themselves, where non-compliance cases are managed by the responsible buyer together with the auditor until resolved. First and foremost, the work focuses on establishing a strong partnership and developing a sustainable supply base. Those who fail to address critical issues risk having their contracts terminated. All Volvo Group Purchasing employees receive regular mandatory trainings on the concept of Sustainability and on the content of our Supplier Code of Conduct.

In 2020, 95% of the total Volvo Group spend was to suppliers who were self-assessed on environmental and social criteria, 92% with a recorded approved score. In high risk areas, this percentage was 98%, where 97% have recorded an approved score. Because the population and scope of suppliers changes continuously, and the total number of suppliers can shift over time, the exact percentage of new suppliers that were screened using social and environmental criteria is not available.

In addition, new suppliers of direct material in high risk countries are subject to due diligence, thorough screening or audit. Indirect material suppliers are audited when the suppliers are located in a high risk country and the annual spend exceeds a certain pre-defined financial threshold.

In 2020, 38 suppliers were audited in Brazil, China, India, Malaysia, Mexico, Russia and South Africa. 21 of these audits were fully approved without identified non-conformances.

Due to the Covid-19 situation, on-site audits have been difficult to conduct during 2020 and as response, audits have also been trialed via digital connection. On-site sustainability trainings for our suppliers had to be postponed due to Covid-19. Instead, in cooperation with DRIVE Sustainability, a collaboration platform for responsible sourcing within the automotive sector, the Volvo Group has taken part in producing and launching an on-line training for supply chain partners. This training enables commitment and communication around all key sustainability topics and serves as a good alternative to previously held face to face training. The training is built on knowledge and experience with on-site face to face training held previous years but reached a wide audience without travelling and avoiding gathering larger groups of participants.

Social impacts in the supply chain and actions taken

In 2020, deviations were found within the areas of health and safety, working hours and sustainability communication towards sub-suppliers. In the area of Health and Safety, the deviations related to fire emergency and first aid procedures as well as handling of chemicals and hazardous materials. In the area of working hours, the findings were related to excessive working hours and in the area of supplier communication, the deviations were found around inconsistent sub-supplier Code of Conducts, lack of cascading requirements and information and training to sub-contractors about social, environmental or business ethics requirements. The findings from the audits are communicated back to the suppliers. The suppliers are expected to set up and implement a corrective action plan in a timely manner. Such corrective actions are then monitored by the responsible buyer in cooperation with the auditor and the Responsible Purchasing Team. All have confirmed corrective actions to be taken.

Environmental impacts in the supply chain and actions taken

In 2020, minor deviations related to hazardous waste management were found. All have confirmed corrective actions to be taken.

An important environmental focus in the supply chain focuses on the transition to carbon neutrality. This includes both components and solutions used in Volvo Group's products but will increasingly also include emission performance at suppliers. The supply chain ambition follows the Volvo Group's overall ambition to enable customers to go fossil free by 2040.

Sustainable Minerals Program

Volvo Group does not directly source tin, tantalum, tungsten, gold and cobalt. Regardless, these minerals are part of global supply chains and are used in a variety of materials and components. The Volvo Group's ambition is to support its suppliers to secure sustainable supply chains of such minerals. As part of this work, Volvo Group is a member of RMI (Responsible Minerals Initiative, see information to the right). In 2020, 1,121 tier one companies were invited to take part in the Volvo Group's sustainable minerals program with the aim to create transparency and visibility in the supply chains of minerals. The ultimate aim is to secure an environmentally and socially sound supply chain of components and minerals.

Several of the invited companies already collaborate and all invited will be assessed on the parameters of (a) strength of Human Rights Due Diligence program and (b) association to smelters or refiners of concern in their supply chain. The long-term ambition of the Sustainable Minerals program is to drive full transparency by 2025 where all supply chain partners in scope are to be compliant with our Responsible Purchasing standards and requirements.

The Volvo Group's program for sustainable purchasing can be summarized in these main elements

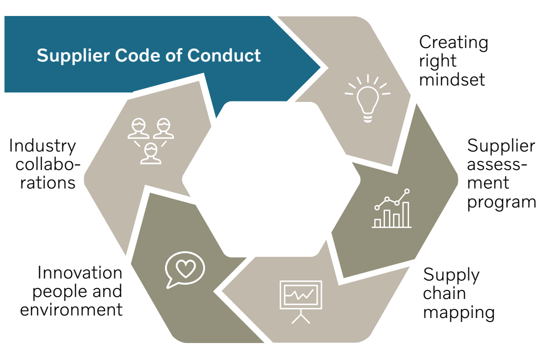
The foundation is the Supplier Code of Conduct which creates the right mindset and shall be part of all contracts with suppliers.

A supplier sustainability assessment program requires a basic evaluation of all our supply chain partners through the Sustainability Self-Assessment Questionnaire, a tool developed in collaboration with DRIVE Sustainability. Significant new supply chain partners in high-risk countries are assessed through an on-site audit with focus on working environment and labor practices. Audits of existing suppliers are made of selected suppliers in connection with the Human Rights reviews of our own operations and on an ad hoc basis if a specific need is identified.

Detailed supply chain mapping focus on specific segments and areas. One such focus area is the sustainable minerals program focusing on minerals such as tin, tantalum, tungsten, gold and cobalt.

Suppliers play a key role in implementing innovation in our sustainability processes and tools. Joint innovation programs focus on topics such as circularity and eco-design as well as electrification, automation and connectivity.

Industry Collaboration drives broader implementation.



Examples of industry collaborations for sustainable supply chains

The Responsible Minerals Initiative (RMI) is a collaborative platform addressing responsible mineral sourcing issues in global supply chains. Volvo Group is working with RMI with the aim to ensure responsible and sustainable sourcing of tin, tantalum, tungsten and gold (sometimes referred to as conflict minerals), as well as cobalt. Through RMI, participants develop and gain access to tools and resources to ensure regulatory compliance and support responsible sourcing of minerals from conflict-affected and high-risk areas.

DRIVE Sustainability is a network of eleven leading automotive companies working towards enhancing sustainability throughout the automotive industry by leveraging a common voice and by engaging with our supply chain partners, stakeholders and related sectors on impactful activities. Volvo Group is active in several working groups within the initiative to leverage a circular and sustainable automotive value chain. The Self-Assessment Questionnaire was during 2020 launched in its fourth version and has now been translated and made available in 13 different languages.

The Global Battery Alliance a public-private collaboration platform under the umbrella of the World Economic Forum. The vision is to create a circular and sustainable battery value chain set on ten guiding principles covering issues from the circular recovery of battery materials, ensuring transparency of greenhouse gas emissions and their progressive reduction, to eliminating child and forced labor.

Business ethics and compliance

Connection to Agenda 2030 and reporting standards

Main connections to the UN SDGs and targets
16.5 Substantially reduce corruption and bribery

Referenced reporting standards
GRI 205 – Anti-corruption 2016

COMPLIANCE PROGRAMS

Legal compliance forms the basis for everything we do in the Volvo Group. It covers many different areas and is guided by people of expertise and knowledge across the Group, and spans across topics such as emissions regulations, competition and anti-corruption laws, export control regulations and data privacy.

Our Code of Conduct states that we shall compete in a fair manner on the merits of our products and services and not participate in or endorse any corrupt practices. These principles of compliance are implemented through dedicated resources and compliance programs, including policies and guidelines, a comprehensive range of e-learning and tailored face-to-face training, counselling and support, as well as auditing and reviews. In addition, the Volvo Group whistle-blower procedures apply to all compliance areas.

ANTI-CORRUPTION

The Volvo Group's Code of Conduct and the related anti-corruption policy condemn all forms of corruption. This is based on the conviction that bribery and other forms of corruption distort the market, interfere with free competition, violate laws and undermine social development. Volvo Group employees may not participate in or endorse any corrupt practices, including offering or accepting kickbacks, bribes, excessive gifts or hospitality, or facilitation payments – directly or indirectly, such as through a third party. Nor will the Volvo Group accept suppliers, vendors or partners that offer or accept bribes.

Corruption risks are primarily linked to the activities of the Volvo Group's business partners and to the behaviors of employees in situations in relation to public officials and other customer representatives. The overall risk level is also affected by the fact that Volvo Group pursues business operations in many markets that are considered high-risk from a corruption perspective.

The Volvo Group has established dedicated anti-corruption policies and guidelines to complement the Volvo Group Code of Conduct. Among other things, these include a risk-based mandatory anti-corruption due diligence process for new and existing business partners requiring the use of external screening tools. We also implemented binding rules to ensure appropriate gift and hospitality practices as well as further documents in adjacent areas such as commercial gifts, charitable donations, anti-money laundering and fraud reporting. Corporate Compliance is responsible for designing and developing the Volvo Group anti-corruption compliance program and monitors the implementation across the Group. A network of compliance officers in the business areas and divisions work closely with Corporate Compliance to ensure the implementation in their respective areas.

Volvo Group uses a combination of audits, management control systems and internal controls to ensure adherence to the Code of Conduct. Further, the Code of Conduct encourages all employees to speak up and report suspected violations to their managers or other management representatives. Another way to raise a concern is through the Volvo Group Whistle, available on volvogroup.com.

Communication and training about anti-corruption policies and procedures

Volvo's top management, Corporate Compliance and other internal stakeholders regularly communicate the importance of anti-corruption compliance in various forms. Training is a central element of the Volvo Group's compliance programs. In 2020, the Volvo Group has revised its compliance training strategy to ensure a risk-based combination of face-to-face training and online courses depending on individual exposure to corruption risk. Due to the impact of Covid-19 and the related furlough or short-term lay-offs of employees globally, the annual Code of Conduct Training was postponed to December 2020. By year-end, 37,000 employees (86% of the target group) had finalized the training.

WHISTLE BLOWER REPORTING

In 2020, 97 cases were reported via Volvo Group's whistle-blower helpline, escalated to Corporate Audit and investigated. We observed a lower input of cases reported correlating with periods of stricter lockdown measures during Q2 and Q4. Six of the reported cases were categorized as suspected corruption or conflict of interest. One was closed substantiated with appropriate disciplinary and remediation actions taken.

Whistle-blower concerns escalated to Corporate Audit

	2020		2019	
Type of concerns reported				
Workplace management	40	41%	69	52%
Business Ethics and Financial Practices	33	34%	42	32%
Corruption and Conflict of Interest	6	6%	7	5%
Other including Inquiries	18	19%	15	11%
Total	**97**	**100%**	133	100%

TAX PRACTICES

The Volvo Group regards corporate tax compliance as a matter of responsible business behavior. The Volvo Group shall comply with the tax laws and regulations of each country where we operate. The Group does not engage in any aggressive tax planning activities through structures in tax havens or otherwise. Where tax laws do not give clear guidance, prudence and transparency shall be the guiding principles. A fundamental objective of Volvo Group's tax policy is to ensure compliance with these principles throughout the Group, and at the same time ensure tax-conscious management of our operations. The average corporate tax rate of the Volvo Group for the last five years is 24% (24).

LOBBYING

The Volvo Group has a continuous dialogue with authorities, regulators and policymakers on issues relevant for us and our customers' business and operations. The dialogue is guided by yearly priorities approved by the Executive Board. The Volvo Group is engaged in direct and indirect lobbying, mainly in EU and US. Associated costs are reported to lobby registers for transparency. In 2020, the total staff cost for lobbying in the EU and the US was approximately SEK 12 M.

The Volvo Group observes neutrality with regard to political parties and candidates for public office. The Volvo Group Code of Conduct and related policies serve as the foundation for our position on public policy.

Volvo Group's lobbying efforts, direct or indirect via its memberships in associations, related to public policy are based on the following guiding principles, set by the Executive Board:

1. In line with the Paris Climate Agreement
2. Fair and free trade
3. Level playing field
4. Technology neutrality
5. Global standards
6. Long-term prerequisites
7. Clarity and predictability

Volvo Group is member of several trade associations, providing a possibility to monitor and comment on proposed regulations and policies. A list of material memberships is available on volvogroup.com/lobbying. A risk-based review of indirect corporate climate lobbying activities has also been initiated and the results from this will be made available as we progress during 2021.

Organizational profile and reporting practices

Reporting cycle
The reporting cycle is annual. No significant restatements have been made. The reporting period is January 1, 2020 to December 31, 2020. The date of most recent report was February 25 2020.

Name of the organization
The name of the company issuing this report is AB Volvo (publ). The company is the parent company of the Volvo Group.

Activities, brands, products and services
The Volvo Group is one of the world's leading manufacturers of trucks, buses, construction equipment and marine and industrial engines. The Group also provides complete solutions for financing and service. The brand portfolio consists of Volvo, Volvo Penta, UD Trucks, Terex Trucks, Renault Trucks, Prevost, Nova Bus, Mack and Arquus. Joint ventures are held with the SDLG, Eicher and Dongfeng brands.

Location of headquarters and operations
The Volvo Group is headquartered in Gothenburg, Sweden, and has production facilities in 18 countries and sells its products in more than 190 markets. The company was founded in Sweden in 1927 where the Volvo Group still operates a significant part of its operations. Other significant operations are found in the US, Brazil, India, France, Japan and China. For more information about major production facilities, please refer to volvogroup.com/asr2020.

The Group's five largest markets are the US, France, United Kingdom, Japan and Germany.

Ownership and legal form
AB Volvo (publ) is a publicly-held company, and its shares are listed on the stock exchange Nasdaq Stockholm, Sweden.

Scale of the organization
Net sales amounted to SEK 338 billion in 2020. See page 92 for segment reporting. Refer to page 205 for a summary of products delivered.

Supply chain
As one of the world's leading manufacturers of trucks, buses, construction equipment and marine and industrial engines, the Volvo Group is highly reliant on robust global and local supply chains to deliver components, parts and complete services and systems.

In 2020, the Volvo Group bought goods and services for SEK 233 billion.

Significant changes to the organization and its supply chain
No significant changes of the Group's organization or supply chain have affected the reporting set out herein for 2020.

Precautionary principle or approach
A precautionary principle is applied. This is exemplified by the life-cycle management approach taken when developing trucks, buses, construction equipment and other vehicles and machinery. Applying life-cycle approach provides insights for decision making on environmental gains and potential trade-offs. This approach is the foundation for the Volvo Group Environmental Policy.

External initiatives

The Volvo Group is a signatory of the UN Global Compact. It further recognizes and supports several international conventions and principles, including the International Bill of Human Rights, the ILO eight fundamental conventions, the UN Guiding Principles on Business and Human Rights and the OECD Guidelines for Multinational Enterprises. In addition, the Group participates in a number of initiatives and collaboration platforms more specifically targeting CO_2 emission reductions, such as:

- **Science Based Targets initiative (SBTi)** is a partnership between CDP, the United Nations Global Compact, World Resources Institute and the WWF. The purpose is to provide technical assistance and expert resources to companies who set science-based targets in line with the latest climate science.
- **H2Accelerate** is an industry collaboration focusing on creating the conditions for the mass-market roll-out of hydrogen trucks in Europe.
- **Energy Transition Commission** is a global coalition from across the energy landscape committed to achieving net-zero emissions by mid-century.

Data collection

Quantitative data for the sustainability disclosures are consolidated in different systems.

Environmental data is reported at site level following the setup of the environmental management system. The data is controlled internally by an environmental coordination network and consolidated at Group level.

Health and safety data is reported at operating unit level and consolidated at Business Area/Truck Division and Group level.

Other employee related data is reported and quality assured at legal entity level, consolidated and quality assured at a shared service center and controlled and reviewed at Group level.

Compliance related information are gathered using a case management system from the Code of Conduct help- and whistle-blower reporting line provided by a third party.

Qualitative data is collected from a range of functions responsible for driving each material sustainability topic.

External assurance

The Volvo Group has secured external assurance of certain parts of its sustainability related activities. Limited assurance has been done on the topics of Energy and Emissions as reported on pages 155–157 and activities undertaken as part of the Volvo Group's commitment to WWF Climate Savers as described on page 29 and further on volvogroup.com/climate, where the separate assurance letter is also available.

The Group's Auditor reviews the statutory sustainability report according to auditing standard RevR 12 as defined on page 193 of the Annual and Sustainability Report under the title The auditor´s opinion regarding the statutory sustainability report.

Information on employees and other workers

Total number of employees by employment contract, by gender and region

	Permanent		Temporary		Agency/consultants	Total workforce
	Men	Women	Men	Women		
Europe	38,335	10,068	824	434	4,012	53,673
North America	12,320	3,239	91	33	626	16,309
South America	4,522	926	257	61	81	5,847
Asia and Pacific	14,624	2,435	945	120	1,164	19,288
Africa	774	249	37	13	4	1,077
Group total	**70,575**	**16,917**	**2,154**	**661**	**5,887**	**96,194**

Total number of employees by employment type, by gender

	Full time		Part time		Agency/consultants	Total workforce
	Men	Women	Men	Women		
Group total	**71,919**	**16,729**	**810**	**849**	**5,887**	**96,194**

CORPORATE GOVERNANCE

CORPORATE GOVERNANCE REPORT 2020

The Volvo Group appreciates sound corporate governance as a fundamental base in promoting its long-term strategic objectives and in achieving a trusting relation with shareholders and other key stakeholders. High standards when it comes to transparency, reliability and ethical values are guiding principles within the Volvo Group's operations.

The Swedish Corporate Governance Code

AB Volvo's shares are admitted to trading on the stock exchange Nasdaq Stockholm's main market. As a listed company, Volvo applies the Swedish Corporate Governance Code (the Code), which is available at www.corporategovernanceboard.se.

This Corporate Governance Report has been prepared in accordance with the Swedish Annual Accounts Act and the Code, and is separate from the Annual and Sustainability Report. The report has been reviewed by Volvo's auditors and includes a report from the auditors.

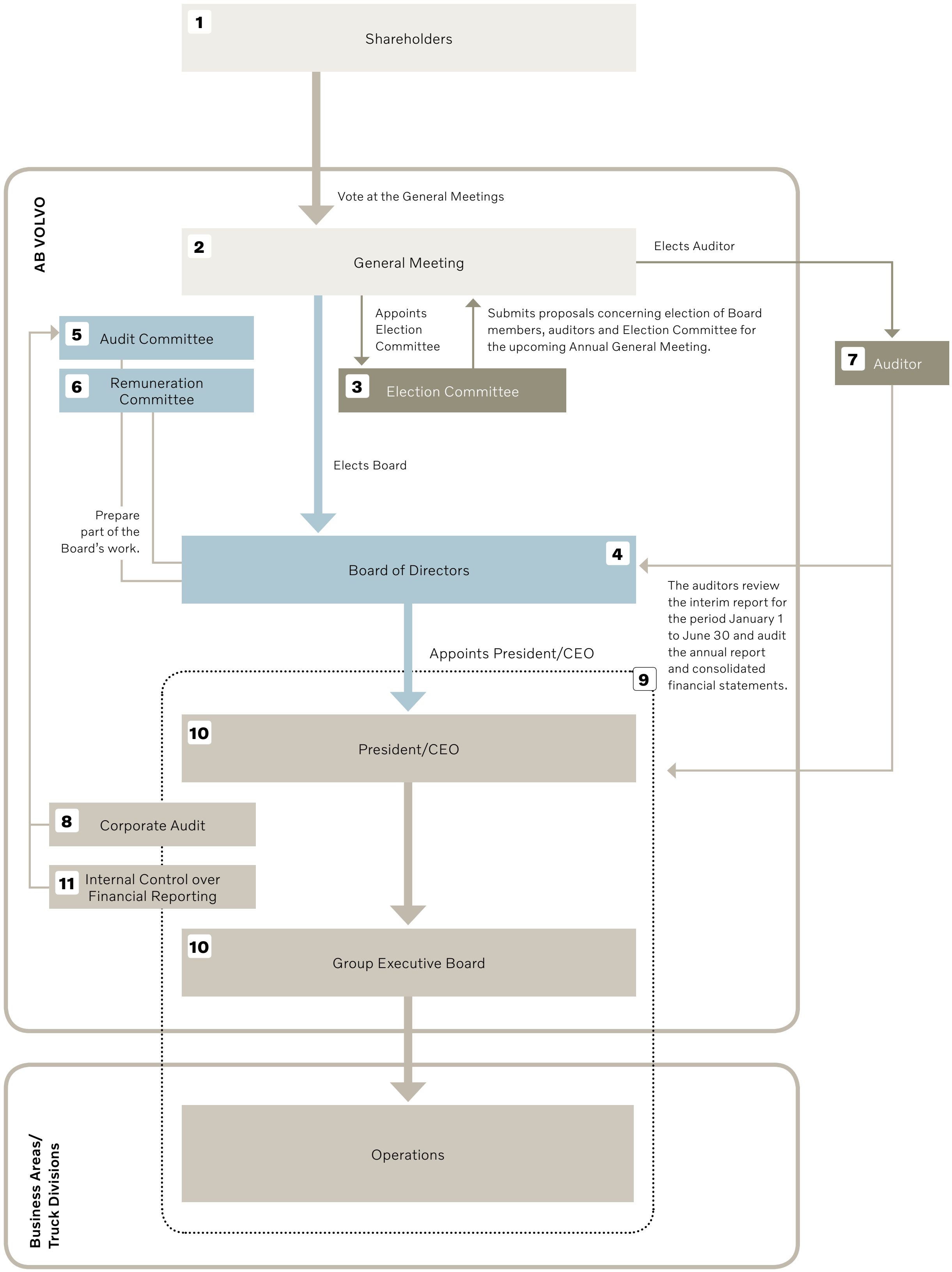
Corporate Governance Model

At the General Meetings of AB Volvo, which is the Parent Company of the Volvo Group, the shareholders exercise their voting rights with regard to for example the composition of the Board of Directors of AB Volvo and the election of auditors.

An Election Committee, appointed by the Annual General Meeting of AB Volvo, submits proposals to the General Meeting concerning the election of Board members and Board Chairman as well as proposals for resolutions concerning remuneration of the Board. When applicable, the Election Committee also submits proposals to the General Meeting for the election of external auditors and for resolutions concerning fees to the auditors.

The Board is ultimately responsible for Volvo's organization and the management of its operations.

In addition, the Board appoints the President and CEO of AB Volvo. The CEO is in charge of the daily management of the Group in accordance with the guidelines provided by the Board.


1 Shareholders
Vote at the General Meetings
AB VOLVO
2 General Meeting
Elects Auditor
Appoints Election Committee
Submits proposals concerning election of Board members, auditors and Election Committee for the upcoming Annual General Meeting.
5 Audit Committee
6 Remuneration Committee
3 Election Committee
7 Auditor
Elects Board
Prepare part of the Board's work.
4 Board of Directors
The auditors review the interim report for the period January 1 to June 30 and audit the annual report and consolidated financial statements.
Appoints President/CEO
9
10 President/CEO
8 Corporate Audit
11 Internal Control over Financial Reporting
10 Group Executive Board
Business Areas/ Truck Divisions
Operations

1 SHARES AND SHAREHOLDERS

AB Volvo (publ) is a CSD company, which means that the share register is maintained by Euroclear Sweden AB. On December 31, 2020, Volvo had 283,731 shareholders according to the share register. The largest shareholder, in terms of votes on that date was AB Industrivärden, with 27.5 percent of the votes. As per the same date, Geely Holding held 15.9 percent of the votes, AMF Insurance & Funds held 5.6 percent of the votes, Alecta held 4.7 percent of the votes and Norges Bank Investment Management held 4.2 percent of the votes, based on the number of shares outstanding.

Volvo has issued two classes of shares: series A and series B. At a General Meeting, series A shares carry one vote and series B shares one-tenth of a vote. The two share classes carry equal rights in the assets and earnings of the company. According to a special share conversion clause in the Articles of Association, holders of series A shares are entitled to request that their series A shares be converted to series B shares. Implementation of such conversions, which occurs on a regular basis, entail that the total number of votes in the company decreases.

The Annual General Meeting 2020 resolved to adopt the Board's proposal to reduce the share capital by way of cancellation of the company's approximately 95 million own shares. The cancellation was implemented in July 2020 and entailed that the total amount of registered shares in the company decreased by a corresponding amount.

For more information about the Volvo share and its shareholders, please refer to the Board of Director's Report on pages 66–67 of the Annual and Sustainability Report.

2 GENERAL MEETING

General

The General Meeting is Volvo's highest decision-making body. The Annual General Meeting is held within six months of the end of the fiscal year, normally in Gothenburg, Sweden.

In addition to what follows from applicable law regarding shareholders' right to participate at General Meetings, under Volvo's Articles of Association shareholders must give notice of their attendance (within the time stated in the convening notice) and, when applicable, notify the company of any intention to bring assistants.

A shareholder who wants the Meeting to consider a particular matter must submit a request to the Board in sufficient time prior to the Meeting to the address provided on Volvo's website, www.volvogroup.com.

The Annual General Meeting 2020 resolved to amend the Articles of Association, allowing the Board to collect powers of attorney in accordance with the procedure described in the Companies Act as well as allowing the Board to decide that shareholders shall be able to exercise their right to vote by post before a General Meeting.

As a consequence of the developments due to the Covid-19 pandemic, the Board decided by the end of March 2020 to postpone the Annual General Meeting 2020. The Meeting, which was initially planned for April 8, was held on June 18. In order to reduce the risk of spreading the virus and considering the authorities' regulations and advice on avoiding public gatherings, the Meeting was carried out through postal voting, without any physical attendance, pursuant to temporary legislation. As communicated by the Swedish Corporate Governance Board in March 2020, this is not to be considered a deviation from the Code.

Annual General Meeting 2021

Volvo's Annual General Meeting for 2021 will be held on Wednesday, March 31, 2021. For further information about the Annual General Meeting 2021, please refer to the fold-out at the end of the Annual and Sustainability Report and Volvo's website, www.volvogroup.com.

3 ELECTION COMMITTEE

Duties

The Election Committee is elected by the General Meeting. The Election Committee shall perform the tasks that are incumbent upon the Election Committee according to its instructions from the General Meeting and the rules of the Code. The main task is to prepare and present proposals to the Annual General Meeting on behalf of the shareholders for the election of Board members, Chairman of the Board and Board remuneration and, when applicable, proposals for auditors and fees to the auditors.

In addition, the Election Committee presents proposals for members of the Election Committee for the following year, in accordance with prevailing instructions for Volvo's Election Committee.

Composition

In accordance with the current instructions for Volvo's Election Committee (adopted by the Annual General Meeting 2019), the Annual General Meeting shall elect five members to serve on the Election Committee, of whom four shall represent the largest shareholders in the company, in terms of votes who have expressed their willingness to participate in the Election Committee. In addition, one of the members shall be the Chairman of the AB Volvo Board.

Volvo's Annual General Meeting 2020 resolved to appoint the following individuals as members of the Election Committee:

- Bengt Kjell (AB Industrivärden)
- Anders Oscarsson (AMF and AMF Funds)
- Ramsay Brufer (Alecta)
- Carine Smith Ihenacho (Norges Bank Investment Management)
- Carl-Henric Svanberg, Chairman of the Board.

The Election Committee appointed Bengt Kjell as Chairman of the Election Committee.

4 BOARD OF DIRECTORS

Duties

The Board is ultimately responsible for Volvo's organization and management of the company's operations. The Board is responsible for the Group's long-term development and strategy, for regularly controlling and evaluating the Group's operations and for the other duties set forth in the Swedish Companies Act.

Composition

During the period January 1, 2020 to June 18, 2020, AB Volvo's Board consisted of ten members elected by the Annual General Meeting and three members and two deputy members appointed by employee organizations.

The Annual General Meeting 2020 re-elected Matti Alahuhta, Eckhard Cordes, Hanne de Mora, Eric Elzvik, James W. Griffith, Martin Lundstedt, Kathryn V. Marinello, Martina Merz, Helena Stjernholm and Carl-Henric Svanberg as Board members and Kurt Jofs was elected as new Board member. This meant that the total number of members elected by the General Meeting increased from ten to eleven. The Annual General Meeting re-elected Carl-Henric Svanberg as Chairman of the Board. A more detailed presentation of each Board member is set out in the "Board of Directors" section on pages 178–179.

Prior to the Annual General Meeting 2020, the Election Committee announced that it had applied the provisions of rule 4.1 of the Code as board diversity policy. The aim is that the Board as a collective should possess the required mix in terms of background and knowledge, whereby an even gender distribution is taken into particular account. The result of the Election Committee's application of the diversity policy is a Board that represents a mix of both professional experience and knowledge as well as geographical and cultural backgrounds. 36 percent (four out of eleven) of the Board members elected by the Annual General Meeting are women.

Independence requirements

The Board of Directors of AB Volvo is subject to the independence requirements prescribed in the Code.

Prior to the Annual General Meeting 2020, the Nomination Committee presented the following assessment of the independence of Board members elected at the Annual General Meeting 2020.

Carl-Henric Svanberg, Matti Alahuhta, Eckhard Cordes, Hanne de Mora, Eric Elzvik, James W. Griffith, Kurt Jofs, Kathryn V. Marinello and Martina Merz were all considered independent of the company and company management, as well as the company's major shareholders.

Martin Lundstedt, as President of AB Volvo and CEO of the Volvo Group, was considered independent of the company's major shareholders but not of the company and company management.

Helena Stjernholm was considered independent of the company and company management but not in relation to one of the major shareholders, due to her capacity as President and CEO of AB Industrivärden.

Work procedures

Every year, the Board adopts work procedures for the Board's work.

The work procedures outline how the Board's duties should be distributed, including the specific role and duties of the Chairman, instructions for the division of duties between the Board and the President and for the reporting of financial information to the Board. The Board has also adopted specific instructions for the Board's committees, which are linked to the work procedures.

The Board's work in 2020

The Board's work is mainly performed within the framework of formal Board meetings and through meetings in the respective committees of the Board. In addition, regular contact is maintained between the Chairman of the Board and the CEO in order to discuss ongoing business and to ensure that the Board's decisions are executed.

In 2020, the extraordinary situation due to the Covid-19 pandemic has had a significant impact on the Board's work. In 2020, there were nine regular Board meetings and one statutory Board meeting, all included in the Board's initial meeting plan. In addition, the Board has met on a frequent basis during 2020, resulting in a total of 14 extraordinary Board meetings. Most of the Board meetings have been held as video conferences. The attendance of Board members at these meetings is presented in the table on page 177. The company's auditor attended one Board meeting during the year.

An important part of the Board's focus during 2020 has been on managing the immediate challenges and consequences of the Covid-19 pandemic including a focus on the Volvo Group colleagues, customers and business partners and to maintain a tight cost control and focus on cash flow. In addition, the Board has continued its focus on new technologies and the Group's positioning in the transformation of the industry. Product development to meet the Group's own as well as regulators' climate related and other goals is one important part of this work.

Other important parts of the focus on new technologies and industry transformation include the Group's strategic partnerships and other larger transactions. Here, the Volvo Group and Isuzu Motors signed an agreement in October 2020 to form a strategic alliance within commercial vehicles. Further, the Volvo Group and Daimler Truck AG signed an agreement to establish a new joint venture to develop, produce and commercialize fuel-cell systems for use in heavy-duty trucks as the primary focus, as well as other applications.

The Board is continuously updated about climate and sustainability related issues, for instance as part of the health and safety related issues, product plans, investment plans and talent review. During 2020, the Board has been continuously updated and involved in the development of the Group's sustainability work, including the Group's commitment to the Science Based Targets initiative (for further information, see page 29). Climate related issues are considered mainly in relation to product plans and R&D investments, both of which are critical to meet changing customer demands, new business models, environmental impact and regulatory demands. Climate related and environmental regulations as well as technology shift and convergence are two of the Group's top strategic risks and therefore also opportunities and critical topics to be dealt with at Board level.

During 2020, the Board decided on an overall financial plan and investment framework for the Group's operations, including investments in R&D for both electrification and combustion engines to reduce CO_2 emissions. In addition, the Board regularly monitors the Group's earnings and financial position and maintains continuous focus on risk related issues such as overall risk management and ongoing legal disputes and investigations. Further, throughout the year, the Board has devoted time to talent review and succession planning and on the review and follow-up of the Company's quality work.

By allocating time to business reviews of the Group's various truck divisions and business areas the Board remains continuously up-to-date on the status and development of the Group's operations. As part of this work, the Board usually makes a yearly visit to the Company's operations throughout the world. In 2020, the Board had to cancel its trip due to the global situation caused by the Covid-19 pandemic.

Finally, during 2020, the Board decided to discontinue its Technology and Business Transformation Committee since the technology change and business transformation of the Volvo Group require the full Board's involvement.

Evaluation of the Board's work

In 2021, the Board performed its yearly evaluation of the Board's work during the previous year. The purpose of the evaluation is to further develop the Board's efficiency and working procedures and to determine the main focus of the Board's coming work. In addition, the evaluation serves as a tool for determining the competence required by the Board and for analyzing the competence that already exists in the current Board. By that, the evaluation also serves as input for the Election Committee's work with proposing Board members.

As part of the yearly evaluation, Board members were asked to complete a questionnaire and assess various areas related to the Board's work from their own perspective. The areas evaluated for 2020 included the Board's composition, the management and focus of Board meetings, Board support and how the Board addresses issues related to strategy, sustainability, potential risks and succession planning. The areas covered by the evaluation may differ from one year to another to reflect the development of the Board's work and the Volvo Group and in 2020, particular focus was kept on the Board's work during the Covid-19 pandemic.

Separate evaluations were conducted of the Board as a collective, of the Chairman of the Board, the Audit Committee and the Remuneration Committee. The results of the evaluations of the Board as a collective and of the Chairman were discussed by the Board. The results of the evaluations of the committees were, or will be, discussed by the relevant committee. In addition, the results of the evaluations of the Board as a collective and of the Chairman are shared with the Election Committee.

Remuneration of Board Members

The Annual General Meeting resolves on fees to be paid to the Board members elected by the Annual General Meeting. For information about Board remuneration adopted by the Annual General Meeting 2020, please refer to Note 27 in the Group's notes in the Annual and Sustainability Report. During the year, the Board members decided on a 20 percent reduction of their Board and Committee remuneration from the Annual General Meeting 2020 to the Annual General Meeting 2021.

Remuneration of Board members, 2020 (from AGM on June 18, 2020, not adjusted for the 20 percent reduction)	SEK
Chairman of the Board	3,600,000
Board member[1]	1,060,000
Chairman of the Audit Committee	380,000
Member of the Audit Committee	175,000
Chairman of the Remuneration Committee	160,000
Member of the Remuneration Committee	115,000

1 With the exception of the CEO.

The Board's committees

5 AUDIT COMMITTEE

Duties

The Board has an Audit Committee primarily for the purpose of supervising the accounting and financial reporting processes and the audit of the annual financial statements.

The Audit Committee's duties include preparing the Board's work to assure the quality of the Group's financial reporting by reviewing interim reports, the Annual and Sustainability Report and the consolidated accounts. The Audit Committee also has the task of reviewing and overseeing the Group's legal and taxation matters as well as compliance with laws and regulations that may have a material impact on financial reporting. Furthermore, the Audit Committee has the task of reviewing and overseeing the impartiality and independence of the company's auditors. The Audit Committee is also responsible for evaluating both internal and external auditors' work and, when applicable, handling the tender process for audit services. In addition, it is the Audit Committee's task to preapprove what other services, beyond auditing, the company may procure from the auditors. The Audit Committee also adopts guidelines for transactions with companies and persons closely associated with Volvo. Further, the Audit Committee evaluates the quality, relevance and effectiveness of the Group's system for internal control over financial reporting, as well as with respect to the internal audit and risk management, and discharge any other duties of an audit committee according to law or its instructions. Finally, the Audit Committee oversees developments within the ESG (Environmental, Social and Governance) standards, and the Group's reporting in these areas.

Composition and work in 2020

At the statutory Board meeting following the Annual General Meeting 2020, the following Board members were appointed members of the Audit Committee:

- Hanne de Mora
- Eric Elzvik
- Helena Stjernholm.

Hanne de Mora was appointed Chairperson of the Audit Committee.

The Audit Committee met with the external auditors without the presence of management on four occasions in 2020 in connection with Audit Committee meetings. The Audit Committee regularly met with the Head of Corporate Audit in connection with Audit Committee meetings.

The Election Committee's assessment of independence of the Audit Committee members prior to the Annual General Meeting 2020 is presented above under the "Independence requirements" section on page 175.

The Audit Committee and the external auditors, among other tasks, discussed the external audit plan and the view of risk management. The Audit Committee held nine regular meetings during 2020. The attendance of Board members at the committee meetings is presented in the table on page 177. The Audit Committee reports the outcome of its work to all members of the Board on a regular basis and the minutes of the Audit Committee meetings are distributed to all Board members.

6 REMUNERATION COMMITTEE

Duties

The Board has a Remuneration Committee for the purpose of preparing and deciding on issues relating to the remuneration of senior executives in the Group. The duties of the Committee include making recommendations to the Board on the Board's decisions regarding terms of employment and remuneration of the CEO and the deputy CEO of AB Volvo, principles for the remuneration, including pensions and severance payments, of other members of the Group Executive Board and principles for variable salary systems, share based incentive programs and for pension and severance payment structures for other senior executives in the Group.

The Remuneration Committee shall also monitor and evaluate ongoing programs and programs concluded during the year for the variable remuneration of senior executives, application of the guidelines for the remuneration of senior executives on which the Annual General Meeting has resolved on, and the current remuneration structures and levels in the Group.

The Board shall prepare a report for each financial year detailing unpaid and outstanding remuneration that is covered under the guidelines. The report shall be submitted to the Annual General Meeting for approval.

Composition and work in 2020

At the statutory Board meeting following the Annual General Meeting 2020, the following Board members were appointed members of the Remuneration Committee:

- Carl-Henric Svanberg
- Matti Alahuhta
- James W. Griffith
- Mikael Sällström.

Carl-Henric Svanberg was appointed Chairman of the Remuneration Committee.

The Election Committee's assessment of the independence of members of the Remuneration Committee in accordance with the requirements in the Code, prior to the Annual General Meeting 2020, is presented under "Independence requirements" on page 175.

The Remuneration Committee held four regular and two extraordinary meetings during 2020. The attendance of Board members at committee meetings is presented in the table below. The Remuneration Committee reports the outcome of its work to all members of the Board on a regular basis.

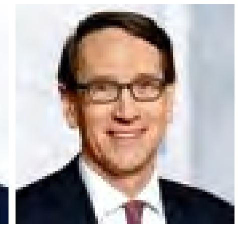
The Board's composition and attendance at meetings January 1, 2020 – December 31, 2020

Member	Ordinary Board meetings (10 incl. statutory)	Extraordinary Board meetings (14)	Audit Committee (9)	Remuneration Committee (6)
Carl-Henric Svanberg	10	14		6
Martin Lundstedt	10	14		
Matti Alahuhta	10	13		6
Eckhard Cordes	10	13[1]		
Hanne de Mora	10	14[2]	9	
Eric Elzvik	10	12	9	
James W. Griffith	10	14		6
Kurt Jofs[3]	6	4		
Kathryn Marinello	10	13		
Martina Merz	10[4]	8[5]		
Helena Stjernholm	10	14	9	
Lars Ask, employee representative	10	13		
Mats Henning, employee representative	10	14		
Mikael Sällström, employee representative	10[6]	14		6
Camilla Johansson, employee representative	10	13		
Mari Larsson, employee representative	10	14		
Total number of meetings	**10**	**14**	**9**	**6**

1 Eckhard Cordes partly attended the extraordinary Board meeting in October 2020.
2 Hanne de Mora partly attended one of the extraordinary Board meetings in March 2020.
3 Kurt Jofs joined the Board in June 2020 and has since attended all ordinary and extraordinary Board meetings during 2020.
4 Martina Merz partly attended ordinary Board meetings in January, October and December 2020.
5 Martina Merz partly attended one of the extraordinary Board meetings in May 2020.
6 Mikael Sällström partly attended one of the ordinary Board meetings in October 2020.

BOARD OF DIRECTORS

BOARD MEMBERS ELECTED BY THE ANNUAL GENERAL MEETING

					
	Carl-Henric Svanberg *Chairman of the Board, Chairman of the Remuneration Committee*	**Matti Alahuhta** *Member of the Remuneration Committee*	**Eckhard Cordes**	**Hanne de Mora** *Chairman of the Audit Committee*	**Eric Elzvik** *Member of the Audit Committee*
Education	MSc in Applied Physics, Linköping Institute of Technology, BSc Business Administration, University of Uppsala.	MSc, Dr Sc. Doctor of Science, Helsinki University of Technology.	MBA and PhD, University of Hamburg.	BA in Economics from HEC in Lausanne, MBA from IESE in Barcelona.	MSc Business Administration, Stockholm School of Economics.
Born	1952	1952	1950	1960	1960
Member of the Volvo Board	Chairman of the Volvo Board since April 4, 2012.	Since April 2, 2014.	Since April 1, 2015.	Since April 14, 2010.	Since April 5, 2018.
Position and Board memberships	Chairman of the Academy: The Royal Swedish Academy of Engineering Sciences (IVA) and Chairman of the European Round Table of Industrialists.	Board Chairman: DevCo Partners Oy. Vice Board Chairman: Metso Outotec. Board member: Kone Corporation and ABB Ltd.	Partner in Cevian Capital and EMERAM Capital Partners. Board Chairman: Bilfinger SE. Member of the Executive Committee of Eastern European Economic Relations of German Industry.	Board Chairperson: a-connect (group) AG and Microcaps AG. Board Member: IMD Supervisory Board, Metso Outotec and Nestlé S.A.	Board Chairman: Global Connect Group. Board member: Telefonaktiebolaget LM Ericsson, Landis+Gyr Group AG and VFS Global.
Principal work experience	Has held various positions at Asea Brown Boveri (ABB) and Securitas AB, President and CEO of Assa Abloy AB, President and CEO of Telefonaktiebolaget LM Ericsson, member of the External Advisory Board of the Earth Institute at Columbia University, the Advisory Board of Harvard Kennedy School and Board Chairman of BP plc.	Has held several management positions in the Nokia Group – President of Nokia Telecommunications, President of Nokia Mobile Phones and Chief Strategy Officer of the Nokia Group, President of Kone Corporation between 2005–2014 and between 2006–2014 also CEO.	Started within Daimler Benz AG in 1976, where he has held several management positions, such as Head of the trucks and buses business, Head of Group Controlling, Corporate Development and M&A in AEG AG and CEO of Mercedes Car Group. Previously CEO of Metro AG, senior advisor at EQT and Board member of Air Berlin, SKF, Carl Zeiss and Rheinmetall AG. Since 2012 partner in Cevian Capital and EMERAM Capital Partners respectively.	Credit Analyst Den Norske Creditbank in Luxemburg 1984. Various positions within brand management and controlling within Procter & Gamble 1986–1989, Partner McKinsey & Company, Inc. 1989–2002, one of the founders and owners, also Board Chairperson of the global consulting firm and talent pool a-connect (group) AG since 2002.	Joined ABB in 1984 and has held several management positions in the Finance function at ABB in Sweden, Singapore and Switzerland – most recently as Group CFO between 2013 and 2017 and previously as CFO for the Divisions Discrete Automation & Motion and Automation Products and a position as Head of Mergers & Acquisitions and New Ventures and also as Head of Corporate Development. Currently, senior industrial advisor to EQT.
Holdings in Volvo, own and related parties	2,000,000 Series B shares.	146,100 Series B shares.	None.	18,230 Series B shares.	7,475 Series B shares.

BOARD MEMBERS APPOINTED BY THE EMPLOYEE ORGANIZATIONS

			
	Lars Ask *Employee representative, ordinary member*	**Mats Henning** *Employee representative, ordinary member*	**Mikael Sällström** *Employee representative, ordinary member* *Member of the Remuneration Committee*
Born	1959	1961	1959
Member of the Volvo Board	Ordinary member since April 6, 2016. Deputy member from June 16, 2009–2016.	Since May 9, 2014.	Since September 7, 2009.
Background within Volvo	With Volvo since 1982.	With Volvo since 1982.	With Volvo 1980–1999 and since 2009.
Holdings in Volvo, own and related parties	116 Series B Shares.	293 Series A shares, 616 Series B shares.	293 Series A shares, 116 Series B shares.

					
James W. Griffith *Member of the Remuneration Committee*	**Kurt Jofs**	**Martin Lundstedt** *President and CEO*	**Kathryn V. Marinello**	**Martina Merz**	**Helena Stjernholm** *Member of the Audit Committee*
BSc Industrial Engineering, MBA from Stanford University.	MSc, KTH Royal Institute of Technology, Stockholm.	MSc, Chalmers University of Technology.	BA from State University of New York at Albany, MBA from Hofstra University.	BS from University of Cooperative Education, Stuttgart.	MSc Business Administration, Stockholm School of Economics.
1954	1958	1967	1956	1963	1970
Since April 2, 2014.	Since June 18, 2020.	Since April 6, 2016.	Since April 2, 2014.	Since April 1, 2015.	Since April 6, 2016.
Board member: Illinois Tool Works Inc.	Board Chairman: Vesper Holding AB and Höganäs AB. Board Member: Telefonaktiebolaget LM Ericsson and Feal AB.	President and CEO of AB Volvo. Board Chairman: Permobil AB. Board Member: ACEA Commercial Vehicle and Concentric AB. Member of the Royal Swedish Academy of Engineering Sciences (IVA).	CEO of PODS. Board Chairperson: Concentrix. Board Member: Ares Acquisition Corporation.	President and CEO of Thyssenkrupp AG. Board Member: SAF Holland SA.	President and CEO of AB Industrivärden. Board Member: AB Industrivärden, Sandvik AB and Telefonaktiebolaget LM Ericsson.
Began his career at The Timken Company in 1984, where he has held several management positions, such as responsible for Timken's bearing business activities in Asia, the Pacific and Latin America and for the company's automotive business in North America. Until 2014 President and CEO at Timken Company.	Previous positions include Executive Vice President and responsible for Ericsson's Networks business 2003–2008, CEO of Segerström & Svensson 1999–2001, CEO of Linjebuss 1996–1999, and various positions within ABB and Ericsson.	President and CEO of Scania 2012–2015. Prior to that, various managerial positions at Scania since 1992. Co-chairman of the UN Secretary-General's High-Level Advisory Group on Sustainable Transport 2015–2016.	Has held several management positions at Citibank, Chemical Bank New York (now JP Morgan Chase), First Bank Systems and First Data Corporation, Division President General Electric Financial Assurance Partnership Marketing and Division President General Electric Fleet Services, President and CEO of Ceridian Corporation and subsequently also Chairman, Board Chairman, President and CEO of Stream Global Services, Inc. Senior Advisor, Ares Management, LLC. Board Member of Nielsen, RealPage, General Motors Co. and MasterCard US. Until 2020 President and CEO of Hertz Global Holdings.	Until January 2015, CEO for Chassis Brakes International. Has, during almost 25 years held various management positions in Robert Bosch GmbH, most recently as Executive Vice President Sales and Marketing in the Chassis System Brakes division combined with responsibility for regions China and Brazil and previously CEO of the subsidiary Bosch Closure Systems, also member of the Board of Management of Brose Fahrzeugteile GmbH & Co.	Between 1998–2015, employed by the private equity firm IK Investment Partners (former Industri Kapital) where she held various positions. She was also a Partner with responsibility for the Stockholm office. She was also a member of IK's Executive Committee. Prior to that she worked as a consultant for Bain & Company.
40,000 Series B shares.	36,800 Series B shares.	191,884 Series B shares.	None.	4,500 Series B shares.	8,000 Series B shares.

DEPUTIES APPOINTED BY THE EMPLOYEE ORGANIZATIONS

	
Camilla Johansson *Employee representative, deputy member*	**Mari Larsson** *Employee representative, deputy member*
1966	1978
Deputy member since April 6, 2016.	Deputy member since May 22, 2015.
With Volvo since 1997.	With Volvo since 2004.
643 Series A shares, 116 Series B shares.	605 Series A shares, 116 Series B shares.

SECRETARY TO THE BOARD


Sofia Frändberg *Secretary to the Board* Master of Laws
1964
Secretary to the Board since April 1, 2013.
Executive Vice President Group Legal & Compliance and General Counsel.
1,738 Series A shares, 54,212 Series B shares.

7 EXTERNAL AUDITING

Volvo's auditors are elected by the Annual General Meeting. The auditors review the interim report for the period January 1 to June 30 and audit the annual financial statements and consolidated accounts. The auditors also review the Corporate Governance Report and confirms whether the Group has presented a Sustainability Report. The auditors report the results of their audit in the Audit Report and in an opinion on the Corporate Governance Report, and provides an opinion on whether the guidelines for remuneration to senior executives have been complied with, which they present to the Annual General Meeting.

The current auditor, Deloitte AB, was elected at the Annual General Meeting 2018 for a period of four years. Jan Nilsson is responsible for the audit of Volvo and Auditor-in-Charge.

For information about Volvo's remuneration of the auditors, please refer to Note 28 "Fees to the auditors" in the Group's notes in the Annual and Sustainability Report.

8 CORPORATE AUDIT

Volvo's internal audit function, Corporate Audit, provides the Board and the Group Executive Board with an independent, risk based and objective assurance on the effectiveness and the efficiency of the governance, risk management and control systems of the Volvo Group. Corporate Audit runs from time to time advisory work as well. Corporate Audit helps the organization to accomplish its objectives by bringing a systematic, disciplined approach to evaluate and to improve the effectiveness of risk management, control and governance processes.

Corporate Audit performs internal audits in selected focus areas, identified through an independent risk assessment process involving key stakeholders, input from past audits and from the other assurance functions including the external auditors. This audit plan is approved by the Audit Committee. In addition, special assignments requested by management and the Audit Committee are performed. The audits cover, among other things, assessments on the adequacy and effectiveness of the organization's processes for controlling its activities and managing its risks and evaluation of compliance with policies and directives.

The head of Corporate Audit reports directly to the CEO, the Group's General Counsel and the Board's Audit Committee.

For additional information on internal control over financial reporting, see pages 186–187.

9 GOVERNANCE PRINCIPLES AND ORGANIZATIONAL STRUCTURE

Volvo's strategy
The Volvo Group's mission is to "Drive prosperity through transport and infrastructure solutions". The Volvo Group drive prosperity socially, environmentally and financially, by striving for transport and infrastructure solutions that are safe, fossil-free and productive. The Volvo Group drive the transformation in its industry to shape the world we want to live in. Based on the updated Group's strategic priorities and Volvo Group 2030 ambitions, each Business Area defines its own operational plans. The long term plans, such as the Group's industrial and product plans, are also crucial parts of the Group's strategic direction. For more information about the Volvo Group's strategy, please refer to pages 8–16 of the Annual and Sustainability Report.

Governance documents
Another key component of the Group's governance is its policies and directives, such as the Code of Conduct and policies pertaining to investments, financial risks, accounting, financial control and internal audit, which contain Group-wide operating and financial rules for the operations, as well as responsibility and authority structures.

Organizational structure
During 2020, the business of the Volvo Group was organized into ten Business Areas. Of these, four represent brand-specific Business Areas for trucks: Volvo Trucks, Renault Trucks, Mack Trucks and UD Trucks, each with profit and loss and balance sheet responsibility for their respective business. The other Business Areas are Volvo Construction Equipment, Volvo Buses, Volvo Penta, ARQUUS, Volvo Financial Services (VFS) and Volvo Autonomous Solution (VAS).

The Group's Trucks Business is further organized into three divisions: Group Trucks Technology (GTT), Group Trucks Purchasing (GTP) and Group Trucks Operations (GTO).

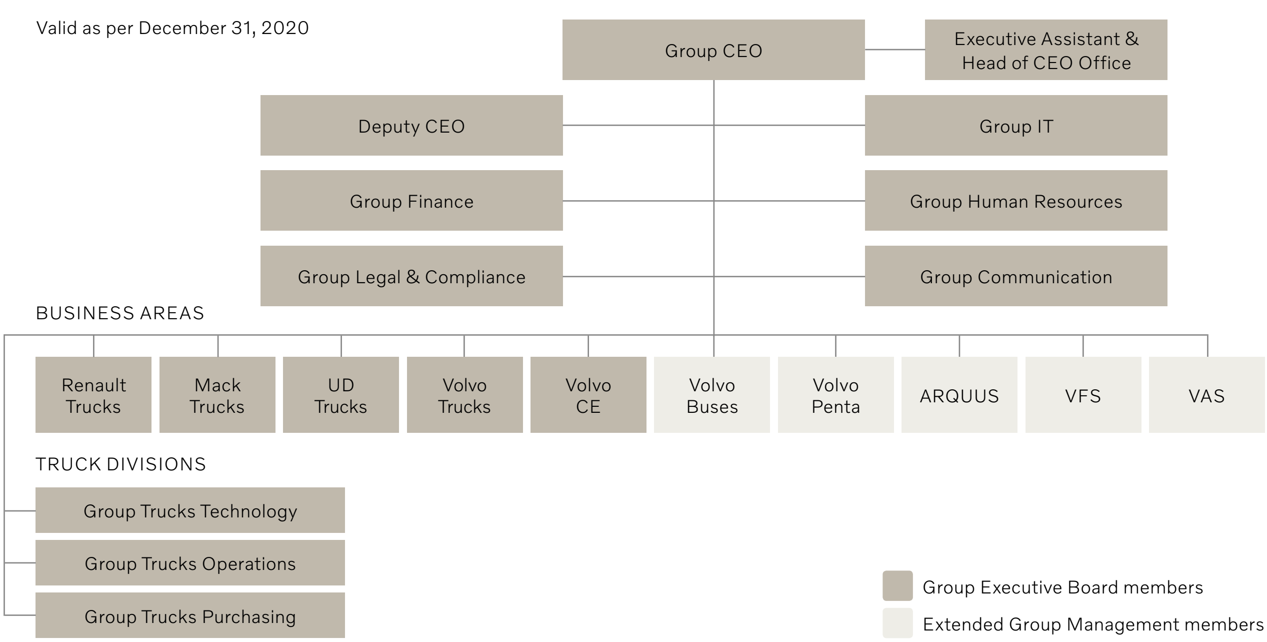
GTT has overall responsibility for product development of engines, transmissions and trucks. GTP is responsible for purchasing for the Group's trucks, engines and transmissions operations as well as for the Group's purchase of indirect products and services. GTO is responsible for the production of all trucks and the Group's engines and transmissions, as well as for the Group's spare parts supply and logistics operation.

The five Group Functions: Group Human Resources, Group Finance, Group Communication, Group Legal & Compliance and Group IT, are tasked with supporting the entire organization with expertise within each Group Function area, developing standards through policies, directives and guidelines and providing services and/or products for the entire Group.

With this governance model, Volvo can utilize the synergies of having global organizations for product development, purchasing and manufacturing, while maintaining clear leadership and responsibility for each brand to make sure that customer needs are met. The aim of the governance model is that all Business Areas are driven according to the same distinct business principles, whereby each Business Area can follow and optimize its own earnings performance and cash flow generation in the short and long term.

On January 28, 2021 the Volvo Group announced that it creates a new business area dedicated to accelerating electrification. The business area, Volvo Energy, will strengthen the Volvo Group's business flow of batteries over the life cycle as well as the customer offer for charging infrastructure. Starting in February 2021, Joachim Rosenberg, member of the Volvo Group Executive Board and Chairman of UD Trucks, will head the new business area.

Volvo Group organization



10 GROUP EXECUTIVE BOARD AND GROUP MANAGEMENT

The Group Executive Board comprises 15 members.

In addition to the CEO and the deputy CEO, the Group Executive Board comprises the Executive Vice Presidents of the Group Functions, the Executive Vice Presidents of the Business Areas Volvo Trucks, Renault Trucks, Mack Trucks, UD Trucks and Volvo Construction Equipment as well as the Executive Vice Presidents of the Truck Divisions. The members of the Group Executive Board report directly to the CEO.

The Presidents of the Business Areas Volvo Buses, Volvo Penta, ARQUUS, VFS and VAS also report directly to the CEO and are part of an extended Group Management Team together with the members of the Group Executive Board.

The CEO is responsible for managing the day-to-day operations of the Volvo Group and is authorized to make decisions on matters that do not require Board approval. The CEO leads the operations of the Group mainly through the Group Executive Board and the extended Group Management Team.

Key decisions related to the Group's offering and technology portfolio are made by the Product Board.

Quality-related matters are addressed in the Quality Board in order to support fast decision-making, coordination and customer focus in this area.

At special meetings for Sales & Operations Planning (S&OP), decisions are made regarding a production plan aimed at optimizing the Volvo Group's overall profitability. The purpose of the meetings is to balance demand with supply chain capabilities, drive capacity management and provide directions for the Group's sales and operations activities.

Each Business Area has quarterly business review meetings where key decisions for the respective Truck Division and Business Area are made.

All of the above bodies affect control and monitoring of the Group's financial development, strategies and targets, and make decisions regarding investments and other matters.

Remuneration of the Group Executive Board

AB Volvo's Annual General Meeting shall, at least every fourth year, resolve on a remuneration policy for remuneration for the members of the Group Executive Board, based on a proposal from the Board. For information about the remuneration policy adopted by the Annual General Meeting 2020, please refer to Note 27 "Personnel" in the Group's notes in the Annual and Sustainability Report.

Changes to the Group Executive Board and Group Management

On January 1, 2020 Scott Rafkin assumed the position as Executive Vice President and Chief Digital Officer and joined the Group Executive Board. Nils Jaeger, President of the new Business Area, VAS, joined the Group Management Team on January 1, 2020. Marcio Pedroso was appointed President of Volvo Financial Services and new member of the Group Management Team from March 16, 2020. Heléne Mellquist was appointed President of Volvo Penta and new member of the Volvo Group Management Team from September 1, 2020. Jens Holtinger replaced Jan Ohlsson on his position as Executive Vice President GTO on October 1, 2020, when he also became a member of the Group Executive Board. Finally, Anna Westerberg replaced Håkan Agnevall as President of Volvo Buses on February 1, 2021, when she also joined the Group Management Team.

Sustainability and climate related matters

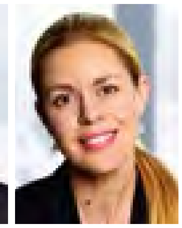
The organizational structure described in this Corporate Governance Report applies to all strategic topics within the Volvo Group, including climate and sustainability matters. The Volvo Group relies on an integrated approach to ensure that sustainability topics are considered in all relevant decision making. Opportunities and risks are identified in the business areas primarily through government regulation, technology development, customer satisfaction and physical risks integrated with other risk perspectives.

Cross-functional working groups, such as the Product Board, Human Rights Board, People Board and Environmental Committee, prepare and coordinate topics for decision at the Group Executive Board and AB Volvo Board level. These groups include relevant Business Area and Truck Division representatives depending on the topic. Climate related opportunities and risks are discussed e.g. in the Product Board, primarily as part of the transition toward fossil-free transportation.


VOLVO

GROUP EXECUTIVE BOARD

							
	Martin Lundstedt *President and CEO*	**Jan Gurander** *Deputy CEO*	**Roger Alm** *Executive Vice President Volvo Group and President Volvo Trucks*	**Bruno Blin** *Executive Vice President Volvo Group and President Renault Trucks*	**Sofia Frändberg** *Executive Vice President Group Legal & Compliance and General Counsel*	**Andrea Fuder** *Executive Vice President Volvo Group Trucks Purchasing and Chief Purchasing Officer for Volvo Group*	**Jens Holtinger** *Executive Vice President Group Trucks Operations*
Education	MSc.	MSc.		MBA.	Master of Laws.	MSc and MBA.	MSc in Mechanical Engineering, Chalmers University of Technology.
Born	1967	1961	1962	1963	1964	1967	1970
Principal work experience	President and CEO of AB Volvo and member of the Group Executive Board since October 2015. President and CEO of Scania 2012–2015. Prior to that, various managerial positions at Scania since 1992. Co-chairman of the UN Secretary-General's High-Level Advisory Group on Sustainable Transport 2015–2016.	Deputy CEO & CFO 2016–2018. CFO & Executive Vice President Volvo Group 2014–2016. CFO & Senior Vice President Finance Volvo Car Corporation 2011–2013. CFO MAN Diesel & Turbo SE 2010. CFO MAN Diesel SE 2008–2009. Group Vice President and CFO Scania AB 2001–2006. President of Business Unit Finance AB Volvo 1999–2001. Senior Vice President & Finance Director Scania AB 1998–1999. Member of the Group Executive Board since 2014. With Volvo 1999–2001 and since 2014.	Senior Vice President Volvo Trucks Europe 2016–2018. Senior Vice President Volvo Group Trucks Northern Europe 2015–2016. President Volvo Group Trucks Latin America 2012–2014. President Volvo Trucks Latin America 2010–2011. Managing Director Volvo Trucks, Region East 2004–2009. With Volvo since 1989. Member of the Group Executive Board since January 2019.	After having worked for several companies in the manufacturing, quality and purchasing areas, he joined Renault Trucks Purchasing in 1999. Has held several senior positions over the years until being appointed Senior Vice President of Volvo Group Purchasing. Has also served as Senior Vice President, Group Truck Sales South Europe January 2013–2016. Member of the Group Executive Board since March 2016. With Volvo since 1999.	Responsible for Group Legal & Compliance and General Counsel of the Volvo Group since April 2013. Head of Corporate Legal at AB Volvo 1998–2013. Corporate Legal Counsel at AB Volvo 1994–1997. Member of the Group Executive Board since April 2013. With Volvo since 1994.	Has worked in Quality and Logistic and held various senior positions at Volkswagen's Purchasing organization since 1992. Head of Purchasing at Scania 2012–2016. Member of the Group Executive Board since 2017. With Volvo since 2017.	Senior Vice President Europe & Brazil Manufacturing Group Trucks Operations 2016–2020. Vice President Powertrain Production Skövde Plant 2012–2016. Has held several leading positions within the Volvo Group. With Volvo since 1995. Member of the Group Executive Board since October 2020.
Board memberships	Chairman of Permobil AB. Board Member of ACEA Commercial Vehicle and Concentric AB. Member of the Royal Swedish Academy of Engineering Sciences (IVA).	Board Member of Teknikföretagen and Skanska AB.			Secretary to the AB Volvo Board since April 2013.	Member of the Board of the German-Swedish Chamber of Commerce.	
Holdings in Volvo, own and related parties	191,884 Series B shares.	73,825 Series B shares.	398 Series A shares, 15,034 Series B shares.	25,165 Series B shares.	1,738 Series A shares, 54,212 Series B shares.	1,600 Series A shares, 36,348 Series B shares.	13,652 Series B shares.

								
	Melker Jernberg *Executive Vice President Volvo Group and President Volvo Construction Equipment*	**Diana Niu** *Executive Vice President Group Human Resources*	**Scott Rafkin** *Executive Vice President and Chief Digital Officer for Volvo Group*	**Joachim Rosenberg** *Executive Vice President Volvo Group and Chairman of UD Trucks*	**Lars Stenqvist** *Executive Vice President Group Trucks Technology*	**Martin Weissburg** *Executive Vice President Volvo Group and President Mack Trucks*	**Kina Wileke** *Executive Vice President Group Communication*	**Jan Ytterberg** *Executive Vice President Group Finance and CFO*
	MSc in Mechanical Engineering.	MBA and BA in Economics.	BBA (Bachelors in Business Administration), University of Massachusetts at Amherst.	MSc Industrial Engineering and Management, MSc Financial Economics, MSc Business and Economics.	MSc Industrial Engineering.	Master of Business Management, BSc Industrial Management.	MA in journalism.	MSc in Business Administration and Economics.
	1968	1966	1969	1970	1967	1962	1974	1961
	CEO and President at Höganäs AB 2014–2017. Executive Vice President, Business Area EMEA at SSAB 2011–2014. Has held various positions at Scania AB since 1989, most recently as Senior Vice President Buses and Coaches at Scania AB 2007–2011. Member of the Group Executive Board since 2018.	Joined Volvo Group in February 2005, with SVP HR jobs in two Business Areas, Trucks Asia Pacific and Volvo Construction Equipment. Worked for Ericsson from July 1993 to January 2005 in a number of leadership positions. Member of the Group Executive Board since January 2019.	Executive Vice President and Chief Digital Officer Volvo Group since 2020. President Volvo Financial Services 2014–2019. Chief Financial Officer Volvo Financial Services 2010–2014. Senior Vice President Global Operations Volvo Financial Services 2003–2009. Senior Vice President Risk Volvo Financial Services 2001–2002. Prior to 2001, held several senior positions with Volvo Car Finance North America. Prior to Volvo, Business Assurance and Capital Markets Manager Coopers & Lybrand LLC (predecessor firm to PriceWaterhouseCoopers).	Executive Vice President Volvo Group and Chairman UD Trucks since 2016. Executive Vice President Group Trucks Sales 2015–2016. Executive Vice President Group Trucks Sales & Marketing APAC 2012–2014. President Volvo Group Asia Truck Operations 2007–2011. Vice President Volvo Group Alliance Office 2007. Vice President Volvo Powertrain 2005–2007. Consultant with McKinsey & Company 1996–2004. Member of the Group Executive Board since 2012. With Volvo since 2005.	Executive Vice President Group Trucks Technology and Volvo Group Chief Technology Officer since October 2016. Head of R&D and CTO at Volkswagen Truck & Bus 2015–2016. Senior Vice President Vehicle Definition R&D at Scania 2007–2015. Prior to that various senior positions at Scania since 1992. Member of the Group Executive Board since 10 October 2016. With Volvo Group since October 2016.	President Mack Trucks since 2018. President Volvo Construction Equipment 2014–2017. President & CEO Volvo Financial Services 2010–2014. President Volvo Financial Services Americas 2005–2010. Prior to Volvo, President Woodard LLC, President Great Dane Financial Services and Senior Vice President ORIX. Member of the Group Executive Team 2010–2014. Member of the Group Executive Board since March 2016.	Responsible for Group Communications since 2018. With the Volvo Group since 2008, most recently as Senior Vice President Brand, Communication & Marketing Volvo Penta 2016–2017, Senior Vice President External Corporate Communication Volvo Group 2012–2016 and CEO Communication Volvo Group 2008–2012. Has held a number of positions in TV4 Group 1998–2008. Member of the Group Executive Board since 2018.	CFO of Husqvarna Group 2015–2018. Executive Vice President and CFO of Scania Group 2006–2015. Various positions in accounting and finance, Scania Group 1987–2006. Member of the Group Executive Board since November 2018.
							Board Member of International Chamber of Commerce (ICC), Sweden.	
	17,277 Series B shares.	46,022 Series B shares.	45,120 Series B shares.	87 Series A shares, 190,143 Series B shares.	23,789 Series B shares.	111,863 Series B shares.	344 Series A shares, 14,956 Series B shares.	9,031 Series B shares.

EXTENDED GROUP MANAGEMENT TEAM

	Nils Jaeger *President of Volvo Autonomous Solutions*	**Emmanuel Levacher** *President and CEO of ARQUUS*	**Heléne Mellquist** *President of Volvo Penta*	**Marcio Pedroso** *President of Volvo Financial Services*	**Anna Westerberg** *President of Volvo Buses*
Born	1969	1962	1964	1968	1975
Principal work experience	Until 2019, President of Volvo Financial Services EMEA. Several leading positions at John Deere both within the agricultural & turf division and the financial services division, including the position as Vice President International Finance, Europe, CIS, N&M East, Northern Africa and Global Trade Finance.	During his 30 years in the automobile industry (Renault Trucks, Renault, Volvo), Emmanuel has held multiple operational and strategic functions in contact with markets on the five continents. He has also built a solid experience with French and foreign governments, state authorities and public and diplomatic institutions.	2019–2020 Senior Vice President of Volvo Trucks Europe, 2016–2019 Senior Vice President of Volvo Trucks International and 2012–2016 CEO of TransAtlantic AB. 1988–2011 Heléne has held several leading position within the Volvo Group.	Between 2015 and 2019 President of Volvo Financial Services Americas. President of Brazil and Chile for Volvo Financial Services 2011–2014. Vice President Latin America Markets for Volvo Financial Services 2010–2011. Marcio has held other senior positions and special assignments across Americas and Europe in the Volvo Group, 2001–2010. Prior to 2001, held various leadership positions outside of Volvo in insurance and corporate finance.	Senior Vice President, Volvo Group Connected Solutions 2017–2021. Prior that President for Volvo Group Venture Capital, since 2014 Vice President, Product Management Industrial, Volvo Penta. With Volvo since 2009.

11 INTERNAL CONTROL OVER FINANCIAL REPORTING

The Board is responsible for the internal controls according to the Swedish Companies Act and the Code. The purpose of this report is to provide share-holders and other interested parties with an understanding of how internal control is organized at Volvo with regard to financial reporting. The description has been designed in accordance with the Swedish Annual Accounts Act and is thus limited to internal control over financial reporting.

Introduction

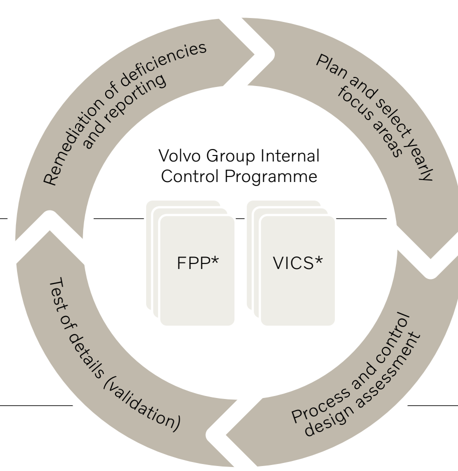
Volvo has a function for internal control with the objective to provide support for management, allowing them to continuously provide solid internal controls relating to financial reporting. Work that is conducted through this function is primarily based to ensure compliance with directives and policies, and to create effective conditions for specific control activities in key processes related to financial reporting. The Audit Committee is regularly informed of the results of the work performed by the Internal Control function within Volvo with regard to risks, control activities and follow-up on the financial reporting.

Volvo also has an internal audit function, Corporate Audit, which among other things, independently monitors that companies in the Group follow the principles and rules that are stated in the Group's directives, policies and instructions for financial reporting. The head of the Corporate Audit function reports directly to the CEO, to the Group's General Counsel and the Board's Audit Committee.

Control environment

Fundamental to Volvo's control environment is the business culture that is established within the Group and in which managers and employees operate. Volvo works actively on communication and training regarding the company's basic values included in the Group's Code of Conduct, to ensure that the business conducted by the organization is characterized by good ethics, integrity and is in compliance with the law.

Volvo Group Internal Control Program
Yearly evaluation of the effectiveness of internal control over financial reporting (ICFR) within the Volvo Group.
* FPP – Financial Policies and Procedures;
VICS – Volvo Internal Control Standard



The foundation of the internal control process relating to the financial reporting is based on the Group's directives, policies and instructions, as well as the organization's responsibility and authority structure. The principles for Volvo's internal controls and directives and policies for the financial reporting are contained in the Volvo Group Management System, a group wide management system comprising, among other things, instructions, rules and principles.

Risk assessment

Risks relating to financial reporting are evaluated and monitored by the Board through the Audit Committee inter alia through identifying risks that could be considered as material, and through the mitigating control objectives. The risk assessment is based on a number of criteria, such as the complexity of the accounting principles, revaluation principles of assets or liabilities, complex and/or changing business circumstances, etc. The risks together with mitigating control objectives are collected in a framework for internal control over financial reporting, Volvo Internal Control Standard (VICS).

Control activities

In addition to the Board and its Audit Committee, the management groups and other decision-making bodies in the Group constitute overall supervisory bodies. Business processes are designed to ensure that potential errors or deviations in the financial reporting are prevented, discovered and corrected by implementing control activities that correspond to the control objectives defined in the VICS framework. Control activities range from review of outcome results against earlier periods and forecasts in management group meetings to specific reconciliation of accounts and analyses of the ongoing processes for financial reporting.

Information and communication

Policies and instructions relating to the financial reporting are updated and communicated on a regular basis from management to all affected employees. The Group's financial reporting function has direct operating responsibility for the daily financial reporting and works to ensure a uniform application of the Group's policies, principles and instructions for the financial reporting and to identify and communicate shortcomings and areas of improvement in the processes for financial reporting.

Follow-up

Ongoing responsibility for follow-up rests with the Group's financial reporting function. In addition, the Corporate Audit and the Internal Control function conduct review and follow-up activities in accordance with what is described in the introduction of this report. More specifically, the Internal Control function runs and coordinates evaluation activities through the "Volvo Group Internal Control Programme", with the purpose of systematically evaluating the quality of the internal control over financial reporting on an annual basis. An annual evaluation plan is established and presented to the Audit Committee. This evaluation program comprises three main areas:

1. Group-wide controls: Self-assessment procedure carried out by management teams at business area, Group Function and company levels. The main areas evaluated are compliance with the Group's financial directives and policies and the Group's Code of Conduct.
2. Process controls at transaction level: Processes related to the financial reporting are evaluated by testing procedures/controls based on the framework for internal control over financial reporting, Volvo Internal Control Standards (VICS).
3. General IT controls: Processes for maintenance, development and access management of financial applications are evaluated by testing procedures and controls.

The results of the evaluation activities are reported to Group management and the Audit Committee. During 2020, the Internal Control function reported two times[1] to the Audit Committee regarding the annual evaluation plan, status on outstanding issues and final assessment of the control environment.

Göteborg, February 25, 2021

AB Volvo (publ)
The Board of Directors

1 In 2020 the Internal Control function reported only twice to the Audit Committee, depending on a changed frequency and content in the reporting.

AUDITOR'S REPORT ON THE CORPORATE GOVERNANCE STATEMENT

To the Annual General Meeting of the shareholders of AB Volvo, corporate identity number 556012-5790

Engagement and responsibility

The Board of Directors is responsible for that the corporate governance statement on pages 172–187 has been prepared in accordance with the Annual Accounts Act.

The scope of the audit

Our examination of the corporate governance statement is conducted in accordance with FAR's auditing standard RevU 16 The auditor's examination of the corporate governance statement. This means that our examination of the corporate governance statement is different and substantially less in scope than an audit conducted in accordance with International Standards on Auditing and generally accepted auditing standards in Sweden. We believe that the examination has provided us with sufficient basis for our opinions.

Opinion

A corporate governance statement has been prepared. Disclosures in accordance with chapter 6 section 6 the second paragraph points 2–6 of the Annual Accounts Act and chapter 7 section 31 the second paragraph the same law are consistent with the other parts of the annual accounts and consolidated accounts and are in accordance with the Annual Accounts Act.

Göteborg, February 25, 2021

Deloitte AB

Jan Nilsson
Authorized Public Accountant

PROPOSED POLICY FOR REMUNERATION TO SENIOR EXECUTIVES

The Board of Directors' of AB Volvo (publ) proposal for guidelines for remuneration to the Volvo Group Executive Board (remuneration policy)

These guidelines (AB Volvo's remuneration policy) concern the remuneration and other terms of employment for the members of the Volvo Group Executive Board ("Executives").

The guidelines are forward-looking, i.e. they are applicable to remuneration agreed, and amendments to remuneration already agreed, after the proposed adoption of these guidelines by the 2021 annual general meeting. These guidelines do not apply to any remuneration decided or approved by the general meeting. Any new share-based incentive plans will, where applicable, be resolved by the general meeting, but no such plan is currently proposed.

The guidelines' promotion of the Volvo Group's business strategy, long-term interests and sustainability

It is a prerequisite for the successful implementation of the Volvo Group's business strategy and safeguarding of its long-term interests, including its sustainability, that the Group can recruit, retain and develop senior management. These guidelines enable AB Volvo to offer Executives a competitive total remuneration. More information regarding the Volvo Group's business strategy is available in the Volvo Group Annual and Sustainability Report.

Types of remuneration

Volvo Group remuneration to Executives shall consist of the following components: base salary, short-term and long-term variable incentives, pension benefits and other benefits.

Short-term incentives may, for the President and CEO, amount to a maximum of 100 per cent of the base salary and, for other Executives, a maximum of 80 per cent of the base salary.

Long-term incentives may, for the President and CEO, amount to a maximum of 100 per cent of the base salary and, for other Executives, a maximum of 80 per cent of the base salary. The current long-term incentive plan for the Group's senior management, including the Executives, was introduced in connection with the 2016 annual general meeting. The objective of the program is to drive long-term value creation and align the interests of the senior management with those of shareholders. To achieve this, the program operates on a four year cycle; with a performance based annual award, which is invested in Volvo shares with a mandatory lock-in period of three years. There will be no payout under the long-term incentive program if the Annual General Meeting that is held in the year following the performance year, decides not to distribute any dividends to the shareholders. The program is funded on an annual basis by an award, measured against performance criteria established by the Board of Directors. The after tax portion of this payment must be immediately invested in AB Volvo shares which must be held for a minimum of three years. In this way, the Executives will build up a shareholding in the company and have a vested interest over the longer term development in the value of the shares. At the end of the three year period, the Executives may sell their shares, if they meet the requirement for owning shares valued at two years of the pre-tax base salary for the President and CEO and one year of the pre-tax base salary for the other Executives. The holding requirements for the Executives shall cease upon termination of an Executive's employment, and the Board of Directors may grant such other exceptions to the requirements as the Board deems appropriate.

Further cash remuneration may be awarded in extraordinary circumstances, provided that such extraordinary arrangements are limited in time and only made on an individual basis, either for the purpose of recruiting or retaining Executives, or as remuneration for extraordinary performance beyond the individual's ordinary tasks. Such remuneration may not exceed an amount corresponding to 100 per cent of the annual base salary. Any resolution on such remuneration shall be made by the Board of Directors based on a proposal from the Remuneration Committee.

For the President and CEO, pension benefits shall be granted on the basis of a defined contribution plan. The pensionable salary shall include base salary only. The pension contributions for the President and CEO attributable to the annual base salary shall amount to not more than 35 per cent of the base salary.

Other benefits may include, for example, life insurance, medical and health insurance, and company cars. Premiums and other costs relating to such benefits may amount to not more than 3 per cent of the annual base salary for the President and CEO.

For other Executives, pension benefits shall be granted on the basis of a defined contribution plan except where law or collective agreement require a defined benefit pension. The pensionable salary shall include base salary and where required by law or collective agreement, short-term incentives. The total pension contributions for other Executives shall amount to not more than 35 per cent of base salary, unless a higher percentage results from the application of law or collective agreement.

Other benefits may include, for example, life insurance, medical and health insurance, and company cars. Premiums and other costs relating to such benefits may amount to not more than 10 per cent of the annual base salary for other Executives.

Remuneration for Executives that reside outside Sweden or reside in Sweden but having a material connection to or having been residing in a country other than Sweden may be duly adjusted to comply with mandatory rules or local practice, taking into account, to the extent possible, the overall purpose of these guidelines.

In addition to remuneration set out above, Executives who relocate for the purposes of the position or who work in other multiple countries may also receive such remuneration and benefits as are reasonable to reflect the special circumstances associated with such arrangements, taking into account the overall purpose of these guidelines and alignment with the general policies and practices within the Volvo Group applicable to cross border work.

Termination of employment
Upon termination of an Executive's employment, the notice period may not exceed twelve months. Base salary during the notice period and severance pay may not together exceed an amount corresponding to the base salary for two years.

Executives that reside outside Sweden or reside in Sweden but having a material connection to or having been residing in a country other than Sweden may be offered notice periods for termination and severance payment as are reasonable to reflect the special circumstances, taking into account the overall purpose of these guidelines and alignment with the general policies and practices within the Volvo Group.

Criteria for awarding variable cash remuneration, etc.
Short-term and long-term incentives shall be linked to predetermined and measurable criteria. The criteria – which for example may relate to EBIT, cash flow, return on capital employed or similar ratios, or sustainability targets – shall be devised to promote the Volvo Group's strategy and long-term value creation and strengthen the link between achieved performance targets and reward. The criteria for short-term and long-term incentives shall be determined by the Board of Directors annually. The satisfaction of the criteria shall be measured over periods of one year each.

To which extent the criteria for awarding variable remuneration has been satisfied shall be determined when the relevant measurement period has ended. The Board of Directors is responsible for the determination of variable remuneration to all Executives.

Claw-back and adjustments
Executives participating in the Volvo Group's current short-term and long-term incentive plans are obligated, in certain circumstances and for specified periods of time, to repay, partially or in its entirety, variable incentive awards already paid if payments have been made by mistake or been based on intentionally falsified data or in the event of material restatement of the Volvo Group's financial results. Furthermore, the Board of Directors may decide on adjustments of pay-out under the incentive plans (before payment has been made) in case of extraordinary circumstances or to adjust for unforeseen one-timers.

Salary and employment conditions for employees
In the preparation of the Board of Directors' proposal for these remuneration guidelines, the Board has considered that the various benefits offered to the Executives need to be aligned with the general structures applicable for employees of AB Volvo at levels that are competitive in the market. Thus, salary and employment conditions for other AB Volvo employees have been taken into account by including information thereon in the Remuneration Committee's and the Board of Directors' basis of decision when evaluating whether the guidelines and the limitations set out herein are appropriate.

The decision-making process to determine, review and implement the guidelines
The Board of Directors has established a Remuneration Committee. The Committee's tasks include preparing the Board of Directors' decision to propose guidelines for executive remuneration. The Board of Directors shall prepare a proposal for new guidelines at least every fourth year and submit it to the general meeting. The guidelines shall be in force until new guidelines are adopted by the general meeting. The Remuneration Committee shall also monitor and evaluate plans for variable remuneration for Executives, the application of the guidelines for executive remuneration as well as the current remuneration structures and compensation levels in the Group. The members of the Remuneration Committee are independent of AB Volvo and its executive management. The President and CEO and other members of the executive management do not participate in the Board of Directors' processing of and resolutions regarding remuneration-related matters in so far as they are affected by such matters.

Derogation from the guidelines
The Board of Directors may temporarily resolve to derogate from the guidelines, in whole or in part, if in a specific case there is special cause for the derogation and a derogation is necessary to serve the Volvo Group's long-term interests, including its sustainability, or to ensure the Group's financial viability. As set out above, the Remuneration Committee's tasks include preparing the Board of Directors' resolutions in remuneration-related matters. This includes any resolutions to derogate from the guidelines.

Description of material changes to the guidelines and how the views of shareholders' have been taken into consideration
During 2020, the Remuneration Committee and the Board of Directors have consulted with shareholders individually and collectively and have followed up on comments and questions received from shareholders in connection with the annual general meeting in June 2020 and otherwise during the year. For further information, please refer to the section Consideration of shareholder views in the Remuneration Report 2020. The Remuneration Committee and the Board have for 2021 and onwards decided to propose a change to the company's pension commitments to its President and CEO, Deputy CEO and other Executives employed in Sweden, aiming to simplify the pension commitments and bring them more in line with the prevailing pension schemes for similar individuals in the Swedish market, without materially altering the remuneration from an economical perspective. Due to the forward-looking nature of the remuneration policy, the amendments apply to new employment contracts entered into after approval of the amended policy by the annual general meeting 2021 and for existing employment contracts if changes are agreed to by the Executives in scope.

Additional information regarding executive remuneration in the Volvo Group is available in the Volvo Group Annual and Sustainability Report.

PROPOSED DISPOSITION OF UNAPPROPRIATED EARNINGS

AB Volvo	SEK
Retained earnings	53,320,235,368.24
Income for the period 2020	1,480,480,229.43
Total retained earnings	**54,800,715,597.67**

The Board of Directors proposes that the above sum be disposed of as follows:

	SEK
To the shareholders, an ordinary dividend of SEK 6.00 per share and an extraordinary dividend of SEK 9.00, for a total of	30,501,781,260.00
To be carried forward	24,298,934,337.67
Total	**54,800,715,597.67**

The record date for determining who is entitled to receive dividends is proposed to be Tuesday April 6, 2021.

In view of the Board of Directors' proposal to the Annual General Meeting to be held March 31, 2021 to decide on the distribution of an ordinary dividend of SEK 6.00 per share and an extraordinary dividend of SEK 9.00 per share, the Board hereby makes the following statement in accordance with Chapter 18, Section 4 of the Swedish Companies Act.

The Board of Directors concludes that the Company's restricted equity is fully covered after the proposed dividend. The Board further concludes that the proposed dividend is justifiable in view of the parameters set out in Chapter 17, Section 3, second and third paragraphs of the Swedish Companies Act. In connection herewith, the Board wishes to point out the following:

The proposed dividend reduces the Company's solvency from 78.0% to 65.2% and the Group's solvency from 29.0% to 24.5%, calculated as per year end 2020. The Board of Directors considers this solvency to be satisfactory with regard to the business in which the Group is active.

According to the Board of Directors' opinion, the proposed dividend will not affect the Company's or the Group's ability to fulfill their payment obligations and the Company and the Group are well prepared to handle both changes in the liquidity and unexpected events.

The Board of Directors is of the opinion that the Company and the Group have capacity to assume future business risks as well as to bear contingent losses. The proposed dividend is not expected to adversely affect the Company's and the Group's ability to make further commercially justified investments in accordance with the Board of Directors' plans.

In addition to what has been stated above, the Board of Directors has considered other known circumstances which may be of importance for the Company's and the Group's financial position. In doing so, no circumstance has appeared that does not justify the proposed dividend.

If the Annual General Meeting resolves in accordance with the Board of Directors' proposal, SEK 24,298,934,337.67 will remain of the Company's non-restricted equity, calculated as per year end 2020.

The Board of Directors has the view that the Company's and the Group's shareholders' equity will, after the proposed dividend, be sufficient in relation to the nature, scope and risks of the business.

The Board of Directors and the President certify that the annual financial report has been prepared in accordance with generally accepted accounting principles and that the consolidated accounts have been prepared in accordance with the international set of accounting standards referred to in Regulation (EC) No 1606/2002 of the European Parliament and of the Council of 19 July 2002 on the application of international accounting standards, and give a true and fair view of the position and profit or loss of the Company and the Group, and that the management report for the Company and for the Group gives a fair review of the development and performance of the business, position and profit or loss of the Company and the Group, and describes the principal risks and uncertainties that the Company and the companies in the Group face.

Göteborg, February 25, 2021

Carl-Henric Svanberg
Board Chairman

Matti Alahuhta
Board member

Eckhard Cordes
Board member

Eric Elzvik
Board member

James W. Griffith
Board member

Kurt Jofs
Board member

Martin Lundstedt
President, CEO and Board member

Kathryn V. Marinello
Board member

Martina Merz
Board member

Hanne de Mora
Board member

Helena Stjernholm
Board member

Lars Ask
Board member

Mats Henning
Board member

Mikael Sällström
Board member

Our audit report was issued on February 25, 2021

Deloitte AB

Jan Nilsson
Authorized Public Accountant

AUDIT REPORT FOR AB VOLVO (PUBL)

To the general meeting of the shareholders of AB Volvo (publ) corporate identity number 556012-5790

REPORT ON THE ANNUAL ACCOUNTS AND CONSOLIDATED ACCOUNTS

Opinions

We have audited the annual accounts and consolidated accounts of AB Volvo (publ) for the financial year 2020-01-01–2020-12-31 except for the sustainability report on page 76. The annual accounts and consolidated accounts of the company are included on pages 40–149, 188–190 and 194–196 in this document.

In our opinion, the annual accounts have been prepared in accordance with the Annual Accounts Act and present fairly, in all material respects, the financial position of the parent company as of 31 December 2020 and its financial performance and cash flow for the year then ended in accordance with the Annual Accounts Act. The consolidated accounts have been prepared in accordance with the Annual Accounts Act and present fairly, in all material respects, the financial position of the group as of 31 December 2020 and their financial performance and cash flow for the year then ended in accordance with International Financial Reporting Standards (IFRS), as adopted by the EU, and the Annual Accounts Act. Our opinions do not include the sustainability report on page 76. The statutory administration report is consistent with the other parts of the annual accounts and consolidated accounts.

We therefore recommend that the general meeting of shareholders adopts the income statement and balance sheet for the parent company and the group.

Our opinions in this report on the annual accounts and consolidated accounts are consistent with the content of the additional report that has been submitted to the parent company's audit committee in accordance with the Audit Regulation (537/2014) Article 11.

Basis for Opinions

We conducted our audit in accordance with International Standards on Auditing (ISA) and generally accepted auditing standards in Sweden. Our responsibilities under those standards are further described in the Auditor's Responsibilities section. We are independent of the parent company and the group in accordance with professional ethics for accountants in Sweden and have otherwise fulfilled our ethical responsibilities in accordance with these requirements. This includes that, based on the best of our knowledge and belief, no prohibited services referred to in the Audit Regulation (537/2014) Article 5.1 have been provided to the audited company or, where applicable, its parent company or its controlled companies within the EU.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinions.

Key Audit Matters

Key audit matters of the audit are those matters that, in our professional judgment, were of most significance in our audit of the annual accounts and consolidated accounts of the current period. These matters were addressed in the context of our audit of, and in forming our opinion thereon, the annual accounts and consolidated accounts as a whole, but we do not provide a separate opinion on these matters.

Impairment risk for vehicles sold with residual value commitment

Risk description

When the sale of the vehicle is combined with a residual value commitment and it is concluded that control with respect to the vehicle sold has not been transferred, the sales transaction is recognized as an operating lease transaction and an asset is recognised in the balance sheet. These assets carry a risk that the ultimate disposal of the used vehicles could lead to a loss if the price development of these vehicles is worse than what was expected when the contracts were entered. The assessment of the risk is based on the estimation of the used vehicle's future fair market value. The accounting principles for vehicles sold with residual value commitment and management's significant judgments applied in relation thereto are further described in Note 13 "Tangible Assets" to the annual report.

Fair market values are dependent on the situation in the used vehicle markets prevailing when the vehicles are expected to be returned. The future-oriented valuation is based on a number of assumptions and involves high degree of estimation for example on conditions of the vehicles returned and expected repair costs, future price developments due to change of market conditions and distribution channels used for ultimate disposal of the vehicles. The Covid-19 pandemic created a demand and supply gap which impacted the prices of used vehicles negatively during parts of 2020 and also the used vehicles fair market value expectations for future years.

Audit procedures

Our audit procedures included, but were not limited to:

- evaluating the design and implementation of relevant internal controls implemented within the determination of fair market value process;
- assessing the reasonableness of the methodology used in determination of fair market value including reviewing management's written policies, procedures and accounting position papers;
- performing audit procedures to test the completeness and accuracy of the underlying data and information used by management in determining the fair market value;
- assessing and challenging the reasonableness of management's significant assumptions in relation to fair market values of used vehicles based on current market trends and future market developments, expected repair costs and distribution channels. Management's assessment was evaluated based on enquiries and inspection of documentation supporting key assumptions and considerations taken by management.

Allowance for Expected Credit Losses for Customer- Financing Receivables

Risk description

The Volvo Group applies a simplified expected credit loss model for customer-financing receivables, under which the loss allowance is measured at an amount equal to lifetime expected credit losses. The allowance is recorded at initial recognition and is reassessed during the contract period. The accounting principles for expected credit losses and management's significant judgments applied in relation thereto are further described in Note 15 "Customer-Financing Receivables" to the annual report.

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The determination of the allowance for expected credit losses for the customer-financing receivables requires management to make significant qualitative judgments, including assumptions regarding current and forecasted market conditions and individual assessment of the largest customers and business segments. Due to uncertainty caused by the ongoing Covid-19 pandemic, historical credit loss information used within the expected credit loss model to forecast future credit losses may not adequately reflect the current economic environment. This leads to a higher risk related to management's assumptions to estimate the expected frequency and severity of defaults and other qualitative management overlays due to the high degree of uncertainty and subjectivity of the severity and duration of the pandemic and its impact on customer and business segments. Additionally, modifications made to customer contracts during the year in response to the Covid-19 pandemic changing payment terms increases risk in management's monitoring of on-going payment performance and identification of signs of customer default as part of the individual assessment of the financial condition of customers.

Audit procedures

Our audit procedures included, but were not limited to:

- evaluating the design and implementation of relevant internal controls implemented within the allowance for expected credit loss process;
- assessing the reasonableness of the expected credit loss model and methodology used including reviewing management's written policies, procedures and accounting position papers around the model;
- involving our financial service industry valuation experts with specific knowledge and expertise who assisted in evaluating the reasonableness of the methodology used;
- performing audit procedures to test the completeness and accuracy of the underlying data and information used in management's expected credit loss model and management overlays;
- independently reperformed the calculations within the model to ensure the output is accurate and carried out retrospective review to assess the reliability of model's historical ability to estimate future credit losses;
- assessing and challenging the reasonableness of management's significant assumptions in relation to severity of default, frequency of default and management overlays, including inspection of documentation supporting key assumptions and considerations taken by management.

Provisions for losses from claims from customers and other third parties – EC Antitrust Settlement

Risk description

In July 2016, the European Commission and Volvo Group reached a settlement with regards to antitrust allegations made by the European Commission in relation to Volvo Group and other companies in the truck manufacturing industry. Following the adoption of the European Commission's settlement decision, the Company has received and may continue to receive numerous third-party damages claims from customers and other third parties alleging that they suffered loss by reason of the conduct covered in the decision. The accounting principles for provisions for legal disputes is further described in Note 21 "Other Provisions" to the annual report.

The recognition and measurement of any provisions recorded for such legal disputes is complicated, requires expert legal input, and involves consideration of potential future outcomes of the claims which at this stage are uncertain. Due to these complexities, the valuation of any such provisions is significantly impacted by management's ultimate judgments and best estimates. At December 31, 2020, the Company has not been able to make a reliable estimate of the amount of any liability that could arise from these claims. Further information is disclosed in Note 24 "Contingent Liabilities" to the annual report.

Audit procedures

Our audit procedures included, but were not limited to:

- holding discussions with management and audit the relevant documentation and conclude how management and the board assessed the claims.
- holding discussions with internal legal department and with Volvo Group's external legal advisors in order to obtain an understanding of matters relevant to the claims.
- reviewing internal minutes and relevant assessments prepared for management to corroborate the consistency of information received.
- evaluating the appropriateness of the Company's final conclusions.
- assessing the adequacy of the disclosures around the legal proceedings.

Other information than the annual accounts and consolidated accounts

The Board of Directors and the Managing Director are responsible for other information. The other information includes the Remuneration report, and the pages 1–39, 150–171 and 197–206 in this document which does not include the annual accounts and consolidated accounts or our Auditors report.

Our opinion on the annual accounts and consolidated accounts does not cover this other information and we do not express any form of assurance conclusion regarding this other information.

In connection with our audit of the annual accounts and consolidated accounts, our responsibility is to read the information identified above and consider whether the information is materially inconsistent with the annual accounts and consolidated accounts. In this procedure we also take into account our knowledge otherwise obtained in the audit and assess whether the information otherwise appears to be materially misstated.

If we, based on the work performed concerning this information, conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of the Board of Directors and the President

The Board of Directors and the President are responsible for the preparation of the annual accounts and consolidated accounts and that they give a fair presentation in accordance with the Annual Accounts Act and, concerning the consolidated accounts, in accordance with IFRS as adopted by the EU. The Board of Directors and the President are also responsible for such internal control as they determine is necessary to enable the preparation of annual accounts and consolidated accounts that are free from material misstatement, whether due to fraud or error.

In preparing the annual accounts and consolidated accounts, The Board of Directors and the President are responsible for the assessment of the company's and the group's ability to continue as a going concern. They disclose, as applicable, matters related to going concern and using the going concern basis of accounting. The going concern basis of accounting is however not applied if the Board of Directors and the President intends to liquidate the company, to cease operations, or has no realistic alternative but to do so.

The Audit Committee shall, without prejudice to the Board of Director's responsibilities and tasks in general, among other things oversee the company's financial reporting process.

Auditor's responsibility

Our objectives are to obtain reasonable assurance about whether the annual accounts and consolidated accounts as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinions. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs and generally accepted auditing standards in Sweden will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these annual accounts and consolidated accounts.

A further description of our responsibilities for the audit of the annual accounts and consolidated accounts is located at the Swedish Inspectorate of Auditors website: www.revisorsinspektionen.se/revisornsansvar. This description forms part of the auditor´s report.

REPORT ON OTHER LEGAL AND REGULATORY REQUIREMENTS

Opinions

In addition to our audit of the annual accounts and consolidated accounts, we have also audited the administration of the Board of Directors and the President of AB Volvo (publ) for the financial year 2020-01-01–2020-12-31 and the proposed appropriations of the company's profit or loss.

We recommend to the general meeting of shareholders that the profit to be appropriated in accordance with the proposal in the statutory administration report and that the members of the Board of Directors and the President be discharged from liability for the financial year.

Basis for Opinions

We conducted the audit in accordance with generally accepted auditing standards in Sweden. Our responsibilities under those standards are further described in the Auditor's Responsibilities section. We are independent of the parent company and the group in accordance with professional ethics for accountants in Sweden and have otherwise fulfilled our ethical responsibilities in accordance with these requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinions.

Responsibilities of the Board of Directors and the President

The Board of Directors is responsible for the proposal for appropriations of the company's profit or loss. At the proposal of a dividend, this includes an assessment of whether the dividend is justifiable considering the requirements which the company's and the group's type of operations, size and risks place on the size of the parent company's and the group's equity, consolidation requirements, liquidity and position in general.

The Board of Directors is responsible for the company's organization and the administration of the company's affairs. This includes among other things continuous assessment of the company's and the group's financial situation and ensuring that the company's organization is designed so that the accounting, management of assets and the company's financial affairs otherwise are controlled in a reassuring manner. The Managing Director shall manage the ongoing administration according to the Board of Directors' guidelines and instructions and among other matters take measures that are necessary to fulfill the company's accounting in accordance with law and handle the management of assets in a reassuring manner.

Auditor's responsibility

Our objective concerning the audit of the administration, and thereby our opinion about discharge from liability, is to obtain audit evidence to assess with a reasonable degree of assurance whether any member of the Board of Directors or the President in any material respect:

- has undertaken any action or been guilty of any omission which can give rise to liability to the company, or
- in any other way has acted in contravention of the Companies Act, the Annual Accounts Act or the Articles of Association.

Our objective concerning the audit of the proposed appropriations of the company's profit or loss, and thereby our opinion about this, is to assess with reasonable degree of assurance whether the proposal is in accordance with the Companies Act.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with generally accepted auditing standards in Sweden will always detect actions or omissions that can give rise to liability to the company, or that the proposed appropriations of the company's profit or loss are not in accordance with the Companies Act.

A further description of our responsibilities for the audit of the management's administration is located at the Swedish Inspectorate of Auditors website: www.revisorsinspektionen.se/revisornsansvar. This description forms part of the auditor´s report.

The auditor´s opinion regarding the statutory sustainability report

The Board of Directors is responsible for the statutory sustainability report on page 76 and that it is prepared in accordance with the Annual Accounts Act.

Our examination has been conducted in accordance with FAR:s auditing standard RevR 12 The auditor´s opinion regarding the statutory sustainability report.

This means that our examination of the statutory sustainability report is different and substantially less in scope than an audit conducted in accordance with International Standards on Auditing and generally accepted auditing standards in Sweden. We believe that the examination has provided us with sufficient basis for our opinion.

A statutory sustainability report has been prepared.

Deloitte AB, was appointed auditor of AB Volvo by the general meeting of the shareholders on April 5, 2018 and has been the company's auditor since April 5, 2018.

Gothenburg, February 25, 2021

Deloitte AB

Jan Nilsson
Authorized Public Accountant

KEY RATIOS

The Volvo Group uses key ratios in order to analyze trends and performance within the Group. The key ratios are not defined by IFRS, unless otherwise is stated, whereby definitions and reconciliations of significant key ratios are presented in the annual report. If the reconciliation is not directly reflected in the financial statements, a separate reconciliation is presented below.

Basic earnings per share (defined by IFRS)
Definition: Income for the period attributable to shareholders of AB Volvo divided by the weighted average number of shares outstanding during the period. For reconciliation see *note 19 Equity and number of shares.*

Cash flow
Definition: The combined changes in the Group's cash and cash equivalents during the fiscal year. Changes in cash and cash equivalents are specified with reference to changes in operating activities, changes in investing activities, which add up to operating cash flow, as well as changes in net investments and financing activities. For reconciliation see *Consolidated cash flow statements*.

Diluted earnings per share (defined by IFRS)
Definition: Diluted earnings per share is calculated as income for the period attributable to the shareholders of AB Volvo divided by the average number of shares outstanding plus the average number of shares that would be issued as an effect of ongoing share-based incentive programs and employee stock option programs. For reconciliation see *note 19 Equity and number of shares*.

EBITDA and EBITDA margin
Definition: EBITDA is the operating income before depreciation and amortization of tangible and intangible assets. The key figure EBITDA margin is calculated as operating income adjusted with depreciation and amortization, in relation to net sales.

	Industrial Operations	
SEK M	**2020**	2019
Net sales	326,472	418,361
Operating income	25,919	46,771
Amortization product and software development	2,733	2,629
Amortization other intangible assets	334	283
Depreciation tangible assets	12,861	12,886
Total depreciation and amortization	15,928	15,797
Operating income before depreciation and amortization (EBITDA)	**41,847**	**62,568**
EBITDA margin, %	**12.8**	**15.0**

Equity ratio
Definition: Total equity divided by total assets.

	Industrial Operations		Volvo Group	
SEK M	**2020**	2019	**2020**	2019
Total equity	135,127	127,150	148,142	141,678
Total assets	377,579	384,517	510,821	524,837
Equity ratio, %	**35.8**	**33.1**	**29.0**	**27.0**

Gross margin
Definition: Gross income divided by net sales.

	Industrial Operations		Volvo Group	
SEK M	**2020**	2019	**2020**	2019
Net sales	326,472	418,361	338,446	431,980
Gross income	73,539	100,598	79,127	106,377
Gross margin, %	**22.5**	**24.0**	**23.4**	**24.6**

Interest coverage
Definition: Operating income plus interest income and similar credits divided by interest expense and similar charges.

	Industrial Operations	
SEK M	**2020**	2019
Operating income	25,919	46,771
Interest income and similar credits	372	320
Operating income and interest income and similar credits	26,291	47,091
Interest expenses and similar charges	–1,422	–1,673
Interest coverage, times	**18.5**	**28.1**

Net capitalization of research and development cost

Definition: Capitalized research and development cost reduced by amortizations.

SEK M	Volvo Group 2020	Volvo Group 2019
Capitalization	2,163	3,526
Amortization	–2,548	–2,520
Net capitalization of research and development cost	**–385**	**1,006**

Net financial position

Definition: Cash and cash equivalents, marketable securities and interest-bearing receivables reduced by short- and long-term interest-bearing liabilities and provisions for post-employment benefits. For reconciliation see table *Net financial position*, which is presented after the balance sheet for the Volvo Group.

Operating income, operating margin, adjusted operating income and adjusted operating margin

Definition operating income: Operating income is profit before interest and tax, also known as EBIT (Earnings before interest and tax) and is a measure of profit from the ordinary business operations. For reconciliation see the *Income statements Volvo Group.*

Definition operating margin: Operating income divided by net sales. Definition adjusted operating income: Adjusted operating income is profit before interest and tax as well as significant expenses or income of a one-time character.

Definition adjusted operating margin: Adjusted operating income divided by net sales.

2020 SEK M	Quarter	Trucks	Construction Equipment	Buses	Volvo Penta	Group functions & Other incl. elim	Industrial operations	Financial Services	Eliminations	Volvo Group
Net sales		**208,262**	**81,453**	**19,791**	**11,891**	**5,074**	**326,472**	**13,960**	**–1,987**	**338,446**
Operating income		**15,764**	**9,583**	**–522**	**1,402**	**–309**	**25,919**	**1,564**	**2**	**27,484**
Depreciation of Assets held for sale	1	–	–	–	–	234	234	–	–	234
Depreciation of Assets held for sale	2	–	–	–	–	315	315	–	–	315
Depreciation of Assets held for sale	3	–	–	–	–	291	291	–	–	291
Depreciation of Assets held for sale	4	–	–	–	–	287	287	–	–	287
Restructuring charges related to head-count reductions	2	–2,335	–615	–85	–50	–70	–3,155	–45	–	–3,200
Restructuring charges related to head-count reductions	3	28	–12	–8	–8	–	0	–	–	0
Restructuring charges related to head-count reductions	4	821	140	16	12	1	990	2	–	992
	Year	–1,486	–488	–77	–46	1,059	–1,037	–43	–	–1,081
Adjusted operating income		**17,251**	**10,071**	**–445**	**1,448**	**1,370**	**26,955**	**1,606**	**2**	**28,564**
Operating margin, %		**7.6**	**11.8**	**–2.6**	**11.8**	**–**	**7.9**	**–**	**–**	**8.1**
Adjusted operating margin, %		**8.3**	**12.4**	**–2.2**	**12.2**	**–**	**8.3**	**–**	**–**	**8.4**

2019 SEK M	Quarter	Trucks	Construction Equipment	Buses	Volvo Penta	Group functions & Other incl. elim	Industrial operations	Financial Services	Eliminations	Volvo Group
Net sales		**276,647**	**88,606**	**31,019**	**13,287**	**8,802**	**418,361**	**14,870**	**–1,252**	**431,980**
Operating income		**31,552**	**11,910**	**1,337**	**1,876**	**97**	**46,771**	**2,766**	**–6**	**49,531**
Capital gain on sale of shares in WirelessCar	1	–	–	–	–	1,466	1,466	–	–	1,466
Capital gain on sale of shares in WirelessCar	4	–	–	–	–	156	156	–	–	156
	Year	–	–	–	–	1,621	1,621	–	–	1,621
Adjusted operating income		**31,552**	**11,910**	**1,337**	**1,876**	**–1,524**	**45,150**	**2,766**	**–6**	**47,910**
Operating margin, %		**11.4**	**13.4**	**4.3**	**14.1**	**–**	**11.2**	**–**	**–**	**11.5**
Adjusted operating margin, %		**11.4**	**13.4**	**4.3**	**14.1**	**–**	**10.8**	**–**	**–**	**11.1**

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Penetration rate

Definition: Share of unit sales financed by Financial Services in relation to total number units sold by the Volvo Group in markets where financial services are offered.

	Financial Services	
Number of units	**2020**	2019
Number of financed units	61,047	62,209
Number of units sold where financial services are offered	201,525	247,218
Penetration rate, %	**30**	**25**

Return on capital employed

Definition: Operating income plus interest income and similar credits divided by weighted average capital employed.

	Industrial Operations	
SEK M	**2020**	2019
Operating income, 12 months rolling	25,919	46,771
Interest income and similar credits, 12 months rolling	372	320
Operating income and interest income and similar credits, 12 months rolling	26,291	47,091
Weighted average capital employed	179,029	166,084
Return on capital employed, 12 months rolling, %	**14.7**	**28.4**

Return on operating capital

Definition: Operating income divided by weighted average operating capital.

	Industrial Operations	
SEK M	**2020**	2019
Operating income	25,919	46,771
Weighted average operating capital	88,305	89,383
Return on operating capital, 12 months rolling, %	**29.4**	**52.3**

Return on total equity

Definition: Income for the period divided by weighted average total equity.

	Volvo Group	
SEK M	**2020**	2019
Income for the period	20,074	36,495
Weighted average total equity	145,343	135,122
Return on total equity, 12 months rolling, %	**13.8**	**27.0**

Sales growth adjusted for currency and acquired and divested operations

Definition: Sales growth adjusted for currency and acquired and divested operations, divided by net sales for the prior year.

	Industrial Operations		Volvo Group	
SEK M	**2020**	2019	**2020**	2019
Net sales	326,472	418,361	338,446	431,980
Increase/decrease of net sales for the year	–91,889	40,042	–93,534	41,146
Currency rates	13,941	–20,911	14,768	–21,591
Acquired and divested units	0	0	0	0
Adjusted Increase/decrease of net sales for the year	–77,948	19,131	–78,766	19,555
Sales growth adjusted for currency and acquired and divested units, %	**–18.6**	**5.1**	**–18.2**	**5.0**

Self-financing ratio

Definition: Cash flow from operating activities divided by net investments in tangible assets, intangible assets and leasing vehicles as defined in the *Consolidated cash flow statement*.

	Industrial operations		Volvo Group	
SEK M	**2020**	2019	**2020**	2019
Cash flow from operating activities	25,862	48,996	30,610	39,047
Investment in in-/tangible assets and leasing vehicles, net	7,317	10,687	10,974	14,591
Self-financing ratio, %	**353**	**458**	**279**	**268**

ELEVEN-YEAR SUMMARY

The reporting in the eleven-year summary is based on IFRS. Respective year is presented in accordance with the Generally Accepted Accounting Practice (GAAP) for that year. Earlier years are not restated when new accounting standards are applied.

Consolidated income statement

SEK M	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Net sales	**338,446**	**431,980**	**390,834**	**334,748**	**301,914**	**312,515**	**282,948**	**272,622**	**303,647**	**310,367**	**264,749**
Cost of sales	–259,319	–326,895	–303,478	–254,581	–231,602	–240,653	–220,012	–212,504	–235,085	–235,104	–201,797
Gross income	**79,127**	**105,085**	**87,357**	**80,167**	**70,312**	**71,862**	**62,937**	**60,118**	**68,562**	**75,263**	**62,952**
Research and development expenses	–16,798	–18,539	–15,899	–16,098	–14,631	–15,368	–16,656	–15,124	–14,794	–13,276	–12,970
Selling expenses	–26,510	–33,037	–30,890	–28,582	–26,867	–27,694	–27,448	–28,506	–28,248	–26,001	–24,149
Administrative expenses	–4,621	–5,901	–5,798	–5,642	–5,121	–5,769	–5,408	–5,862	–5,669	–7,132	–5,666
Other operating income and expenses	–5,459	–221	–2,273	–1,061	–3,135	–4,179	–7,697	–3,554	–2,160	–1,649	–2,023
Income from investments in joint ventures and associated companies	1,749	1,859	1,948	1,407	156	–143	46	96	–23	–81	–86
Income from other investments	–3	285	33	135	112	4,609	50	–30	–47	–225	–58
Operating income	**27,484**	**49,531**	**34,478**	**30,327**	**20,826**	**23,318**	**5,824**	**7,138**	**17,622**	**26,899**	**18,000**
Interest income and similar credits	299	320	199	164	240	257	328	381	510	608	442
Interest expenses and similar charges	–1,349	–1,674	–1,658	–1,852	–1,847	–2,366	–1,994	–2,810	–2,476	–2,875	–3,142
Other financial income and expenses	–518	–1,345	–870	–385	11	–792	931	11	–301	297	213
Income after financial items	**25,917**	**46,832**	**32,148**	**28,254**	**19,230**	**20,418**	**5,089**	**4,721**	**15,355**	**24,929**	**15,514**
Income taxes	–5,843	–10,337	–6,785	–6,971	–6,008	–5,320	–2,854	–919	–4,097	–6,814	–4,302
Income for the period	**20,074**	**36,495**	**25,363**	**21,283**	**13,223**	**15,099**	**2,235**	**3,802**	**11,258**	**18,115**	**11,212**
Attributable to:											
Owners of AB Volvo	19,318	35,861	24,897	20,981	13,147	15,058	2,099	3,583	11,039	17,751	10,866
Non-controlling interest	755	635	466	302	75	41	136	219	219	364	346
	20,074	**36,495**	**25,363**	**21,283**	**13,223**	**15,099**	**2,235**	**3,802**	**11,258**	**18,115**	**11,212**

Income statement Industrial Operations

SEK M	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Net sales	**326,472**	**418,361**	**378,320**	**323,809**	**291,459**	**303,582**	**275,999**	**265,420**	**296,031**	**303,589**	**257,375**
Cost of sales	–252,933	–319,055	–296,109	–248,382	–225,797	–236,311	–217,251	–209,307	–231,216	–233,097	–197,480
Gross income	**73,539**	**99,306**	**82,210**	**75,428**	**65,662**	**67,271**	**58,748**	**56,113**	**64,815**	**70,492**	**59,895**
Research and development expenses	–16,798	–18,539	–15,899	–16,098	–14,631	–15,368	–16,656	–15,124	–14,794	–13,276	–12,970
Selling expenses	–24,284	–30,483	–28,642	–26,495	–24,946	–25,857	–25,778	–26,904	–26,582	–25,181	–22,649
Administrative expenses	–4,611	–5,887	–5,756	–5,602	–5,081	–5,728	–5,367	–5,824	–5,639	–4,753	–5,640
Other operating income and expenses	–3,673	230	–1,828	–640	–2,531	–3,473	–6,931	–2,710	–1,600	–1,045	–659
Income/loss from investments in joint ventures and associated companies	1,749	1,859	1,948	1,407	156	–143	46	96	–23	–82	–86
Income from other investments	–4	285	33	135	112	4,610	49	–31	–46	–225	–57
Operating income	**25,919**	**46,771**	**32,067**	**28,135**	**18,740**	**21,312**	**4,111**	**5,616**	**16,130**	**25,930**	**17,834**

Consolidated balance sheets SEK M	**2020**	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Intangible assets	34,577	36,668	38,104	35,893	37,916	36,416	37,115	36,588	40,373	39,507	40,714
Property, plant and equipment	49,113	53,496	55,673	53,348	55,875	53,618	55,181	52,233	55,004	54,540	54,242
Assets under operating leases	37,962	43,326	43,103	37,166	34,693	32,531	31,218	25,672	29,022	23,922	19,647
Shares and participations	13,436	13,113	11,875	11,225	12,420	12,050	9,839	6,327	2,890	1,874	2,098
Inventories	47,625	56,644	65,783	52,701	48,287	44,390	45,533	41,153	40,409	44,599	39,837
Customer-financing receivables	128,531	142,982	126,927	109,378	110,821	102,583	99,166	83,861	80,989	78,699	72,688
Interest-bearing receivables	5,880	2,743	3,393	3,501	2,393	2,938	2,555	1,389	5,635	3,638	2,757
Other receivables	73,982	81,432	82,509	72,961	70,814	61,932	68,448	59,943	55,531	59,877	53,154
Cash and cash equivalents	85,419	61,660	47,093	36,270	25,172	24,393	33,554	29,559	28,889	37,241	32,733
Assets held for sale	34,296	32,773	203	51	525	3,314	288	8,104	–	9,348	136
Assets	**510,821**	**524,837**	**474,663**	**412,494**	**398,916**	**374,165**	**382,896**	**344,829**	**338,742**	**353,244**	**318,007**
Total equity[1]	148,142	141,678	125,831	109,011	97,764	85,610	80,048	77,365	86,914	85,681	74,121
Provision for post-employment benefits	18,430	19,988	16,482	14,476	14,669	13,673	16,683	12,322	6,697	6,665	7,510
Other provisions	27,335	30,835	32,165	25,477	26,408	27,207	28,010	19,900	21,787	20,815	18,992
Interest-bearing liabilities	153,424	157,752	135,857	127,676	141,048	132,607	147,985	135,001	131,842	130,479	123,695
Other liabilities	152,204	164,171	164,328	135,854	118,879	114,495	110,042	99,891	91,502	104,888	93,554
Liabilities held for sale	11,286	10,413	–	–	148	573	130	350	–	4,716	135
Total equity and liabilities	**510,821**	**524,837**	**474,663**	**412,494**	**398,916**	**374,165**	**382,896**	**344,829**	**338,742**	**353,244**	**318,007**
[1]of which non-controlling interests	2,847	3,083	2,452	1,941	1,703	1,801	1,723	1,333	1,266	1,100	1,011
Assets pledged	14,960	21,220	15,988	12,791	10,592	9,428	7,680	5,078	4,099	1,832	3,339
Contingent liabilities	13,832	13,732	14,247	15,242	16,056	15,580	15,940	17,290	17,763	17,154	11,003

Balance sheets Industrial Operations

SEK M	**2020**	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Intangible assets	34,423	36,467	37,889	35,716	37,768	36,314	37,010	36,479	40,267	39,385	40,613
Property, plant and equipment	49,045	53,411	55,631	53,308	55,812	53,554	55,087	52,146	54,899	54,446	54,169
Assets under operating leases	29,460	33,794	32,700	24,051	22,752	20,616	19,484	17,013	21,263	16,749	13,217
Shares and participations	13,421	13,095	11,866	11,215	12,409	12,042	9,825	6,321	2,884	1,871	2,080
Inventories	47,273	56,080	65,366	52,231	48,080	44,194	45,364	40,964	40,057	43,828	38,956
Customer-financing receivables	1,695	1,570	1,560	1,358	1,698	11	1,828	1,406	1,397	1,702	1,428
Interest-bearing receivables	6,301	4,916	3,882	4,966	4,415	3,738	2,777	2,195	11,011	6,734	11,153
Other receivables	84,413	99,082	101,347	85,822	75,759	68,223	70,413	60,679	54,324	59,062	52,358
Cash and cash equivalents	82,186	57,675	43,907	32,447	20,875	21,210	31,105	28,230	27,146	35,951	31,491
Assets held for sale	29,362	28,427	203	51	525	3,314	288	8,104	–	9,348	136
Assets	**377,579**	**384,517**	**354,351**	**301,165**	**280,093**	**263,216**	**273,181**	**253,537**	**253,248**	**269,076**	**245,602**
Total equity	135,127	127,150	113,144	97,790	86,579	75,151	70,105	68,467	78,321	76,682	66,101
Provision for post-employment benefits	18,282	19,850	16,374	14,391	14,608	13,621	16,580	12,249	6,663	6,635	7,478
Other provisions	23,794	27,055	28,476	22,680	22,545	23,936	25,054	17,575	19,653	19,101	17,240
Interest-bearing liabilities	35,017	32,326	25,328	27,001	33,944	32,562	48,180	52,491	54,472	55,394	59,857
Other liabilities	158,721	172,209	171,029	139,303	122,269	117,374	113,131	102,405	94,139	106,548	94,791
Liabilities held for sale	6,638	5,927	–	–	148	573	130	350	–	4,716	135
Total equity and liabilities	**377,579**	**384,517**	**354,351**	**301,165**	**280,093**	**263,216**	**273,181**	**253,537**	**253,248**	**269,076**	**245,602**

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Consolidated cash flow statements SEK bn	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Operating income	27.5	49.5	34.5	30.3	20.8	23.3	5.8	7.1	17.6	26.9	18.0
Depreciation and amortization	20.6	20.6	18.4	16.9	16.7	16.8	15.9	17.4	14.7	13.9	13.8
Other non-cash items	1.2	–2.8	9.7	1.4	–0.4	–0.5	6.1	2.4	1.4	1.3	1.6
Change in working capital	–13.7	–18.2	–23.7	–4.7	–13.9	–9.0	–14.1	–10.8	–21.9	–15.1	4.8
Financial items and income tax	–5.0	–10.1	–7.7	–6.3	–5.7	–4.6	–5.0	–5.1	–8.0	–7.3	–5.5
Cash flow from operating activities	**30.6**	**39.0**	**31.2**	**37.6**	**17.5**	**25.9**	**8.7**	**11.0**	**3.8**	**19.7**	**32.7**
Investments in in-/tangible assets	–8.8	–12.0	–10.7	–7.7	–9.5	–8.8	–8.6	–12.2	–14.6	–12.6	–10.4
Investments in leasing assets	–8.6	–10.0	–10.1	–11.5	–10.8	–10.5	–10.1	–8.2	–10.0	–7.4	–4.8
Disposals of in-/tangible assets and leasing assets	6.3	7.4	6.2	5.4	9.0	6.0	5.0	3.4	3.1	3.3	3.1
Investments and divestments of shares, net	–0.5	0.1	1.0	2.2	0.2	–2.0	0.1	0.0	–1.2	–0.1	–0.1
Acquired and divested operations, net	0.4	1.3	–0.2	0.9	1.4	0.4	7.4	0.9	3.4	–1.6	0.6
Interest-bearing receivables including marketable securities	1.1	–1.0	0.1	1.6	2.5	3.6	–4.8	0.5	3.7	2.6	6.8
Cash flow after net investments	**20.7**	**24.9**	**17.4**	**28.5**	**10.4**	**14.5**	**–2.3**	**–4.6**	**–11.8**	**3.9**	**27.9**
Change in loans, net	7.3	9.3	1.9	–9.0	–2.2	–13.2	6.7	13.0	14.1	8.7	–25.7
Repurchase of own shares	–	–	–	–	–	–	–	–	–	–	–
Dividend to AB Volvo's shareholders	–	–20.3	–8.6	–6.6	–6.1	–6.1	–6.1	–6.1	–6.1	–5.1	0.0
Dividend to non-controlling interests	–0.8	0.0	0.0	0.0	–0.2	0.0	0.0	–0.2	0.0	0.0	–0.1
Other	–0.1	0.2	0.0	0.0	0.0	0.0	–0.1	0.1	0.0	0.0	0.0
Change in cash and cash equivalents excluding translation differences	**27.1**	**14.0**	**10.7**	**12.8**	**1.9**	**–4.8**	**–1.8**	**2.2**	**–3.8**	**7.5**	**2.1**
Translation differences on cash and cash equivalents	–3.4	0.5	0.1	–0.7	1.0	–0.4	1.1	–0.5	–0.8	–0.1	–0.4
Change in cash and cash equivalents	**23.7**	**14.5**	**10.8**	**12.1**	**2.9**	**–5.2**	**–0.7**	**1.7**	**–4.6**	**7.4**	**1.7**

Operating cash flow Industrial Operations SEK bn	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Operating income	25.9	46.8	32.1	28.1	18.7	21.3	4.1	5.6	16.1	26.0	17.8
Depreciation and amortization	15.9	15.8	13.8	12.6	12.6	12.6	12.7	14.5	12.0	11.4	11.4
Other non-cash items	–0.8	–3.6	8.9	0.9	–1.1	–1.1	5.3	1.5	0.8	0.6	0.1
Change in working capital	–11.0	–0.5	–11.0	–0.2	–14.7	–1.9	–3.3	–2.0	–9.2	–4.2	4.6
Financial items and income taxes	–4.2	–9.5	–7.5	–5.6	–5.6	–4.0	–4.5	–4.9	–7.3	–6.9	–5.1
Cash flow from operating activities	**25.9**	**49.0**	**36.4**	**35.8**	**9.9**	**26.7**	**14.3**	**14.7**	**12.4**	**26.9**	**28.8**
Investments in in-/tangible assets	–8.7	–11.9	–10.7	–7.7	–9.4	–8.8	–8.6	–12.2	–14.6	–12.6	–10.3
Investments in leasing assets	–0.0	–0.1	–0.0	–0.1	–0.1	–0.3	–0.5	–1.5	–3.6	–1.4	–0.3
Disposals of in-/tangible assets and leasing assets	1.4	1.4	0.9	0.4	3.2	0.7	1.1	0.5	0.9	1.2	0.8
Operating cash flow	**18.5**	**38.3**	**26.6**	**28.4**	**3.5**	**18.3**	**6.4**	**1.5**	**–4.9**	**14.1**	**19.0**

Exports from Sweden SEK M	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Volvo Group, total	92,746	118,543	117,887	107,958	91,962	86,731	78,174	88,560	84,314	91,065	72,688

Key ratios	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Gross margin, %[1]	22.5	23.7	21.7	23.3	22.5	22.2	21.3	21.1	21.9	23.7	23.3
Research and development expenses as percentage of net sales[1]	5.1	4.4	4.2	5.0	5.0	5.1	6.0	5.7	5.0	4.4	5.0
Selling expenses as percentage of net sales[1]	7.4	7.3	7.6	8.2	8.6	8.5	9.3	10.1	9.0	8.0	8.8
Administration expenses as percentage of net sales[1]	1.4	1.4	1.5	1.7	1.7	1.9	1.9	2.2	1.9	2.3	2.2
Operating income before depreciation and amortization (EBITDA), SEK M[1]	41,847	62,568	45,858	40,732	31,373	33,886	16,784	20,089	28,117	37,376	29,171
EBITDA margin, %[1]	12.8	15.0	12.1	12.6	10.8	11.2	6.1	7.6	9.5	12.3	11.3
Net capitalization of research and development, SEK M	–385	1,006	791	–876	90	–550	–1,441	787	2,264	1,197	223
Return on capital employed in Industrial Operations, %	14.7	28.4	22.4	–	–	–	–	–	–	–	–
Return on operating capital in Industrial Operations, %	29.4	52.3	39.0	32.5	21.5	25.0	4.5	5.9	16.5	28.8	19.5
Return on total equity, %	13.8	27.0	21.3	20.8	14.9	18.4	2.8	5.0	12.9	23.1	16.0
Interest coverage, times[1]	18.5	28.1	19.5	15.3	10.3	9.1	2.2	2.1	6.7	9.6	5.9
Self-financing ratio, %	279	268	213	272	155	194	64	84	18	118	270
Self-financing ratio Industrial Operations, %	353	458	373	483	155	316	180	112	72	210	294
Net Financial position excl. post-employment benefits and lease liabilities SEK M[1]	74,691	62,596	43,926	26,339	–1,151	349	–9,924	–19,828	–19,023	–14,974	–18,849
Net financial position excl. post-employment benefits and lease liabilities as percentage of total equity[1]	55.3	49.2	38.8	26.9	–1.3	0.5	–14.2	–29.0	–24.3	–19.5	–28.5
Net Financial position incl. post-employment benefits and lease liabilities SEK M[1]	50,959	37,267	29,101	12,200	–15,679	–13,237	–26,378	–32,066	–22,978	–19,346	–24,691
Net financial position incl. post-employment benefits and lease liabilities as percentage of total equity[1]	37.7	29.3	25.7	12.5	–18.1	–17.6	–37.6	–46.8	–29.3	–25.2	–37.4
Equity ratio	29.0	27.0	26.5	26.4	24.5	22.9	20.9	22.4	25.7	24.3	23.3
Equity ratio, Industrial Operations	35.8	33.1	31.9	32.5	30.9	28.6	25.7	27.0	30.9	28.5	26.9
Equity ratio excluding non-controlling interest	28.4	26.4	26.0	26.0	24.1	22.4	20.5	22.0	25.2	23.9	23.0

1 Pertains to the Industrial Operations.

Volvo share statistics

Data per share (adjusted for issues and splits)[1]	**2020**	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Basic earnings, SEK[1]	9.50	17.64	12.25	10.08	6.47	7.42	1.03	1.77	5.44	8.75	5.36
Cash dividend, SEK	15.00[9]	0	10.00[8]	4.25	3.25	3.00	3.00	3.00	3.00	3.00	2.50
Share price at year end (B share), SEK	193.80	156.90	115.95	152.70	106.40	79.10	84.70	84.45	88.80	75.30	118.50
Dividend yield (B share), %[2]	7.7	0	8.6	2.8	3.1	3.8	3.5	3.6	3.4	4.0	2.1
Effective return (B share), %[3]	33	35	–21	48	39	–3	4	–2	22	–34	97
Price/earnings ratio (B share)[4]	20.4	8.9	9.5	14.8	16.4	10.7	82.2	47.7	16.3	8.6	22.1
EBIT multiple[5]	12.5	6.1	6.5	9.9	11.7	7.7	26.3	19.6	9.0	5.1	12.0
Payout ratio, %[6]	158	0	82	41	50	40	291	169	55	34	47
Total equity, SEK[7]	72	68	61	52	47	41	39	38	43	42	36
Return on total equity, %	13.8	27.0	21.3	20.5	14.9	18.4	2.8	5.0	12.9	23.1	16.0

1 Basic earnings per share is calculated as income for the period divided by average number of shares outstanding.

2 Proposed dividend in SEK per share divided by share price at year end.

3 Share price at year end, including proposed dividend during the year, divided by share price at beginning of the year.

4 Share price at year end divided by basic earnings per share.

5 Market value at year end less net financial position and non-controlling interests divided by operating income.

6 Cash dividend divided by basic earnings per share.

7 Total equity for shareholders in AB Volvo divided by number of shares outstanding at year end.

8 SEK 5.00 per share in ordinary dividend and SEK 5.00 per share in extra dividend.

9 Proposed by the Board of Directors. SEK 6.00 per share in ordinary dividend and SEK 9.00 per share in extra dividend.

Other share data	**2020**	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Number of shareholders at year end	283,731	250,798	245,663	240,521	237,654	234,989	237,871	246,265	242,482	251,715	240,043
Number of Series A shares outstanding at year end, million	448	456	457	459	472	485	492	499	526	643	657
Number of Series B shares outstanding at year end, million	1,585	1,577	1,576	1,573	1,560	1,546	1,537	1,530	1,502	1,385	1,371
Average number of shares outstanding, million	2,033	2,033	2,032	2,032	2,031	2,030	2,028	2,028	2,028	2,027	2,027
Number of Series A shares traded in Stockholm during the year, million	65.7	43.8	51.8	46.7	67.2	51.7	86.3	53.0	45.4	130.5	203.2
Number of Series B shares traded in Stockholm during the year, million	1,407.6	1,146.1	1,293.8	1,341.3	1,667.9	2,052.1	2,068.7	1,878.5	2,081.2	2,944.1	2,272.4

The largest shareholders in AB Volvo, December 31, 2020	Number of shares	Share of votes, %	Share of capital, %
Industrivärden	170,200,000	27.5	8.4
Geely Holding	167,247,516	15.9	8.2
AMF Insurance & Funds	68,194,803	5.6	3.4
Alecta	79,131,010	4.7	3.9
Norges Bank Investment Management	48,619,792	4.2	2.4
AFA Insurance	17,271,346	2.7	0.8
AP4 Fund	16,915,843	1.8	0.8
BlackRock	96,766,082	1.7	4.8
Swedbank Robur Funds	64,753,255	1.4	3.2
Skandia Life	16,825,644	1.1	0.8
Total	**745,925,291**	**66.6**	**36.7**

Distribution of shares, December 31, 2020	Number of shareholders	% of total votes	Share of capital, %
1–1,000 shares	235,566	2.8	2.7
1,001–10,000 shares	44,154	5.6	6.0
10,001–100,000 shares	3,412	3.2	4.1
100,001–	599	88.4	87.2
Total	283,731	100.0	100.0

Business area statistics

Net sales[1] SEK M		2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Trucks	Europe	92,127	112,125	111,237	99,642	91,468	83,767	72,757	73,640	76,365	83,451	69,606
	North America	52,038	85,731	70,233	52,405	51,849	73,017	53,696	40,314	42,650	37,042	26,901
	South America	15,830	23,753	16,021	12,789	10,613	11,624	19,669	23,318	21,172	26,847	21,680
	Asia	35,441	37,610	36,664	36,998	33,464	31,589	29,264	26,740	36,531	37,840	35,231
	Africa and Oceania	12,826	17,427	16,203	14,646	13,256	13,982	15,518	14,462	15,565	13,741	13,887
	Total	**208,262**	**276,647**	**250,358**	**216,480**	**200,650**	**213,978**	**190,904**	**178,474**	**192,283**	**198,920**	**167,305**
Construction Equipment	Europe	23,191	30,300	27,291	22,977	19,739	17,732	17,215	16,356	16,518	17,765	16,138
	North America	13,020	17,404	15,575	12,234	10,724	11,843	10,784	8,319	12,027	7,829	6,267
	South America	2,245	2,532	2,304	1,760	1,414	2,207	3,234	3,314	3,788	4,163	4,130
	Asia	39,095	33,932	33,781	25,058	15,765	16,424	18,458	21,911	27,033	29,999	24,352
	Africa and Oceania	3,902	4,437	5,287	4,468	3,088	2,802	3,164	3,539	4,192	3,745	2,923
	Total	**81,453**	**88,606**	**84,238**	**66,497**	**50,731**	**51,008**	**52,855**	**53,437**	**63,558**	**63,500**	**53,810**
Buses	Europe	5,765	7,369	7,036	7,753	7,861	7,284	6,139	5,429	6,200	6,631	6,242
	North America	8,302	15,543	13,244	12,512	11,345	10,635	6,721	5,929	6,675	7,532	7,200
	South America	1,793	3,281	1,393	1,148	1,363	1,425	2,559	1,836	2,794	2,715	1,737
	Asia	2,397	2,617	2,094	3,135	3,067	2,557	1,892	2,055	2,853	2,953	3,299
	Africa and Oceania	1,535	2,209	2,060	1,530	1,749	1,678	1,334	1,457	1,774	1,992	2,038
	Total	**19,791**	**31,019**	**25,826**	**26,078**	**25,386**	**23,580**	**18,645**	**16,707**	**20,295**	**21,823**	**20,516**
Volvo Penta	Europe	6,064	6,671	7,487	5,727	4,973	4,462	3,779	3,714	3,620	4,274	4,507
	North America	2,532	3,180	2,912	2,456	2,191	2,161	1,584	1,491	1,486	1,379	1,500
	South America	345	319	299	289	291	365	386	297	306	335	335
	Asia	2,228	2,439	2,443	2,082	1,891	1,855	1,615	1,692	1,867	2,130	2,008
	Africa and Oceania	691	679	599	566	546	562	425	356	352	341	366
	Total	**11,891**	**13,287**	**13,741**	**11,119**	**9,893**	**9,406**	**7,790**	**7,550**	**7,631**	**8,458**	**8,716**
Volvo Aero	Europe	–	–	–	–	–	–	–	–	2,404	2,893	3,768
	North America	–	–	–	–	–	–	–	–	2,657	3,300	3,599
	South America	–	–	–	–	–	–	–	–	0	7	27
	Asia	–	–	–	–	–	–	–	–	109	104	233
	Africa and Oceania	–	–	–	–	–	–	–	–	49	52	81
	Total	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**5,219**	**6,356**	**7,708**
	Other and eliminations	5,074	8,802	4,157	3,635	4,799	5,610	5,806	9,252	7,044	4,532	–680
Net sales Industrial Operations		**326,472**	**418,361**	**378,320**	**323,809**	**291,459**	**303,582**	**275,999**	**265,420**	**296,031**	**303,589**	**257,375**
Financial Services	Europe	6,116	6,279	6,063	5,431	5,116	5,278	5,120	4,686	4,703	4,663	4,733
	North America	4,907	5,534	4,600	4,234	4,202	4,033	2,999	2,900	2,833	2,326	2,605
	South America	1,380	1,555	1,276	1,368	1,235	1,116	1,122	1,009	1,195	1,131	1,156
	Asia	1,022	1,010	800	543	476	548	638	707	795	571	435
	Africa and Oceania	535	492	332	235	213	224	232	237	257	192	101
	Total	**13,960**	**14,870**	**13,070**	**11,812**	**11,242**	**11,199**	**10,111**	**9,539**	**9,783**	**8,883**	**9,031**
	Eliminations	–1,987	–1,252	–555	–873	–787	–2,265	–3,162	–2,336	–2,167	–2,104	–1,658
Volvo Group total		**338,446**	**431,980**	**390,834**	**334,748**	**301,914**	**312,515**	**282,948**	**272,622**	**303,647**	**310,367**	**264,749**
Of which:												
Vehicles[2]		247,397	332,558	299,356	252,063	223,996	237,430					
Services		79,075	85,804	78,963	71,747	67,463	66,152					
Financial Services		13,960	14,870	13,070	11,812	11,242	11,199					
Eliminations		–1,987	–1,252	–555	–873	–787	–2,265					

1 Volvo Aero was divested on October 1, 2012.

2 Including construction equipment and Volvo Penta engines.

Operating income[1] SEK M	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Trucks	15,764	31,552	19,541	20,383	15,020	19,517	4,157	6,145	10,216	18,227	10,112
Construction Equipment	9,583	11,910	12,125	7,917	2,246	2,044	652	2,592	5,773	6,812	6,180
Buses	–522	1,337	575	928	911	860	92	–190	51	1,114	780
Volvo Penta	1,402	1,876	2,341	1,439	1,269	1,086	724	626	541	825	578
Volvo Aero	–	–	–	–	–	–	–	–	767	360	286
Financial Services	1,564	2,766	2,411	2,192	2,086	2,006	1,712	1,522	1,492	969	167
Other	–308	91	–2,515	–2,532	–707	–2,195	–1,514	–3,557	–1,217	–1,408	–102
Operating income/loss Volvo Group	**27,484**	**49,531**	**34,478**	**30,327**	**20,826**	**23,318**	**5,824**	**7,138**	**17,622**	**26,899**	**18,000**

1 Between 2009 and 2011, the benefits from the synergies created in the business units are transferred back to the various business areas. Operating income in 2014 included expected credit losses of 660. See section for Key ratios regarding adjusted items.

Operating margin %	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Trucks	7.6	11.4	7.8	9.4	7.5	9.1	2.2	3.4	5.3	9.2	6.0
Construction Equipment	11.8	13.4	14.4	11.9	4.4	4.0	1.2	4.9	9.1	10.7	11.5
Buses	–2.6	4.3	2.2	3.6	3.6	3.6	0.5	–1.1	0.3	5.1	3.8
Volvo Penta	11.8	14.1	17.0	12.9	12.8	11.5	9.3	8.3	7.1	9.8	6.6
Volvo Aero	–	–	–	–	–	–	–	–	14.7	5.7	3.7
Volvo Group Industrial Operations	**7.9**	**11.2**	**8.5**	**8.7**	**6.4**	**7.0**	**1.5**	**2.1**	**5.4**	**8.5**	**6.9**
Financial Services	11.2	18.6	18.4	18.6	18.6	17.9	16.9	16.0	15.3	10.9	1.8
Volvo Group	**8.1**	**11.5**	**8.8**	**9.1**	**6.9**	**7.5**	**2.1**	**2.6**	**5.8**	**8.7**	**6.8**

Regular employees at year-end Number[1]	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Trucks	56,483	59,142	58,891	55,026	52,154	54,668	58,067	58,542	61,256	62,315	57,796
Construction Equipment	13,404	13,756	13,419	12,788	13,397	13,889	14,901	14,663	14,788	18,422	16,648
Buses	6,608	8,324	8,178	7,943	7,353	7,270	6,900	6,648	7,514	8,529	8,685
Volvo Penta	1,798	1,800	1,713	1,622	1,530	1,470	1,422	1,412	1,361	2,549	2,353
Volvo Aero	–	–	–	–	–	–	–	–	–	3,179	3,120
Financial Services	1,511	1,538	1,401	1,363	1,328	1,340	1,339	1,355	1,362	1,323	1,235
Other	7,688	8,015	8,527	8,362	8,277	9,827	10,193	12,913	12,436	1,845	572
Volvo Group, total	**87,492**	**92,575**	**92,129**	**87,104**	**84,039**	**88,464**	**92,822**	**95,533**	**98,717**	**98,162**	**90,409**

1 As of 2012, employees in business units are not allocated to the business areas.

Environmental performance of Volvo production plants, Industrial operations
More detailed information and management approach are further described in Sustainability Notes on page 155-158.

Absolute values and related to net sales	2020	2019	2018	2017
Energy usage (GWh; MWh/SEK M)[2]	1,814; 5.6	2,118; 5.1	2,196; 5.8	2,068; 6.4
Direct CO_2 emissions, scope 1 (1,000 tons; tons/SEK M)[2]	173; 0.5	211; 0.5	223; 0.6	207; 0.6
Indirect CO_2 emissions, scope 2 (1,000 tons; tons/SEK M)[2]	97; 0.3	113; 0.3	198; 0.5	192; 0.6
Water consumption (1,000 m^3; m^3/SEK M)	5,218; 16.0	5,706; 13.6	4,870; 12.9	4,817; 14.9
NO_x emissions (tons; kilos/SEK M)	204; 0.6	311; 0.7	360; 1.0	301; 0.9
Solvent emissions (tons; kilos/SEK M)	1,342; 4.1	1,488; 3.6	2,148; 5.7	1,681; 5.2
Sulphur dioxide emissions (tons; kilos/SEK M)	5.6; 0.02	9.6; 0.02	13.6; 0.04	13.3; 0.04
Hazardous waste (tons; kilos/SEK M)	51,806; 160	51,024; 122.0	38,601; 102.0	31,941; 98.6
Net sales, Industrial operations (SEK bn)	326.5	418.4	378.3	323.8

1 Restated according to new standards.
2 From 2012 revised system boundaries and emission factors.

Regular employees at year-end Number	**2020**	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Sweden	20,598	21,094	20,887	19,965	19,235	20,412	21,384	22,588	23,052	24,663	23,073
Europe, excluding Sweden	27,678	29,033	28,807	27,596	26,955	27,662	29,449	29,746	30,382	30,458	29,239
North America	15,559	17,750	17,845	15,882	14,245	15,534	15,217	16,397	16,569	15,427	12,844
South America	5,448	5,466	5,228	4,774	4,762	5,380	6,353	6,275	5,977	5,234	4,322
Asia	16,121	16,863	16,888	16,526	16,469	17,046	17,793	17,953	20,222	19,924	18,535
Africa and Oceania	2,088	2,369	2,474	2,361	2,373	2,430	2,626	2,574	2,515	2,456	2,396
Volvo Group total	**87,492**	**92,575**	**92,129**	**87,104**	**84,039**	**88,464**	**92,822**	**95,533**	**98,717**	**98,162**	**90,409**

Delivered units Number	**2020**	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Heavy-duty trucks (>16 tons)	140,652	201,092	193,886	171,963	158,025	176,589	173,650	170,307	172,798	179,779	123,522
Medium-duty trucks (7–16 tons)	10,736	12,700	14,065	14,331	15,691	14,749	15,114	16,779	32,935	34,631	30,657
Light trucks (<7 tons)	15,453	18,977	18,539	16,108	16,708	16,137	14,360	13,188	18,284	23,982	25,811
Total trucks	**166,481**	**232,769**	**226,490**	**202,402**	**190,424**	**207,475**	**203,124**	**200,274**	**224,017**	**238,391**	**179,989**

Number		**2020**	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Trucks	Europe	79,814	104,145	110,349	105,432	97,909	86,448	72,458	82,088	84,355	95,113	65,503
	North America	32,056	62,308	53,877	37,941	39,193	64,507	57,714	44,755	47,806	42,613	24,282
	South America	17,684	23,729	16,146	11,073	9,442	11,069	23,741	29,137	23,443	29,274	21,483
	Asia	27,009	29,435	32,276	35,476	31,502	31,979	32,399	28,692	51,514	56,165	53,833
	Africa and Oceania	10,278	13,152	13,842	12,480	12,378	13,472	16,812	15,602	16,899	15,226	14,888
	Total	**166,841**	**232,769**	**226,490**	**202,402**	**190,424**	**207,475**	**203,124**	**200,274**	**224,017**	**238,391**	**179,989**
Construction Equipment	Europe	15,762	21,420	19,567	17,519	14,700	12,539	14,174	13,522	12,545		
	North America	5,025	7,278	7,218	5,685	5,105	5,710	7,127	5,240	6,782		
	South America	2,335	2,004	2,023	1,372	1,175	2,036	3,669	3,568	3,908		
	Asia	68,232	53,664	50,716	36,254	21,072	22,339	33,648	44,892	49,263		
	Africa and Oceania	2,406	2,519	3,130	3,297	2,254	2,094	2,699	3,564	2,982		
	Total	**93,760**	**86,885**	**82,654**	**64,127**	**44,306**	**44,718**	**61,317**	**70,786**	**75,480**		
Buses	Europe	1,565	2,350	2,142	2,645	2,676	2,431	2,221	2,146	2,491	2,695	2,395
	North America	1,644	3,084	2,796	2,973	2,659	2,398	1,590	1,752	1,826	3,014	2,092
	South America	1,152	1,917	973	784	1,149	1,415	2,985	2,434	2,560	2,620	1,174
	Asia	1,097	1,465	1,451	2,186	1,849	1,656	1,242	1,822	2,945	3,417	3,477
	Africa and Oceania	797	915	1,064	805	1,220	925	721	756	856	1,040	1,091
	Total	**6,215**	**9,731**	**8,426**	**9,393**	**9,553**	**8,825**	**8,759**	**8,910**	**10,678**	**12,786**	**10,229**

2016	2015	2014	2013	2012[1]	2011	2010
2,076; 7.1	2,077; 6.8	2,168; 7.9	2,320; 8.7	2,483; 8.5	2,471; 8.1	2,315; 9.0
211; 0.7	220; 0.7	231; 0.8	255; 1.0	273; 0.9	255; 0.8	279; 1.1
196; 0.7	192; 0.6	218; 0.8	243; 0.9	260; 0.9		
4,430; 15.2	4,919; 16.2	4,982; 18.1	5,815; 21.9	7,372; 25.2	7,970; 26.2	7,519; 29.2
333; 1.1	344; 1.3	332; 1.2	347; 1.3	413; 1.4	474; 1.6	719; 2.8
1,792; 6.1	1,885; 6.2	2,472; 9.0	2,221; 8.4	2,358; 8.1	2,554; 8.4	2,294; 8.9
12.9; 0.04	32.1; 0.1	37.9; 0.1	23.4; 0.1	26; 0.1	34; 0.1	33; 0.1
27,649; 94.9	27,824; 91.6	24,944; 90.4	28,395; 107.0	32,547; 111.4	25,943; 85.5	22,730; 88
291.5	303.6	276.0	265.4	292.2	303.6	257.4

ANNUAL GENERAL MEETING, MARCH 31, 2021

The Annual General Meeting of AB Volvo will be held Wednesday,March, 2021. The Meeting will be carried out through advance voting (postal voting) pursuant to temporary legislation.

Notice

Those who wish to participate must (i) be recorded in the share register prepared by Euroclear Sweden AB relating to the circumstances on March 23, 2021, and (ii) notify its intention to participate in the Meeting no later than March 30, 2021, by casting its advance vote in accordance with the below instructions so that the advance form is received by Euroclear Sweden AB no later than that day.

A special form shall be used for advance voting. The form is available on AB Volvos website www.volvogroup.com. The advance form is considered as the notification of participation.

The completed voting form must be received by Euroclear Sweden AB no later than Tuesday, March 30, 2021. The form may be submitted via e-mail to GeneralMeetingService@euroclear.com, or by post to AB Volvo (publ), "Annual General Meeting," c/o Euroclear Sweden, P.O. Box 191, SE-101 23 Stockholm, Sweden. Shareholders who are natural persons may also cast their advance votes electronically through BankID verification via AB Volvo's website, www.volvogroup.com.

If the shareholder is a legal entity, a certificate of incorporation or a corresponding document shall be enclosed to the form. The shareholder may not provide special instructions or conditions in the voting form. If so, the vote (i.e. the advance vote in its entirety) is invalid. Further instructions and conditions are included in the form for advance voting.

To be entitled to participate in the Annual General Meeting, a shareholder whose shares are held in the name of a nominee must register its shares in its own name so that the shareholder is recorded in the share register as at March 23, 2021. Such registration may be temporary (so-called voting right registration) and is requested from the nominee in accordance with the nominee's procedures and such time in advance as the nominee determines. Voting registrations completed not later than March 25, 2021 are taken into account when preparing the register of shareholders.

VOLVO'S ELECTION COMMITTEE

The following persons are members of Volvo's Election Committee:

Bengt Kjell	Chairman of the Election Committee (AB Industrivärden), appointed by the Annual General Meeting
Pär Boman	(Svenska Handelsbanken, SHB Pensionsstiftelse, SHB Personalstiftelse, SHB Pensionskassa and Oktogonen), appointed by the Annual General Meeting
Ramsay Brufer	(Alecta), appointed by the Annual General Meeting
Carine Smith Ihenacho	(Norges Bank Investment Management), appointed by the Annual General Meeting
Carl-Henric Svanberg	Chairman of the Board, appointed by the Annual General Meeting

Among other duties, the Election Committee is responsible for submitting to the Annual General Meeting proposals for candidates to serve as members of the Board of Directors, Chairman of the Board and proposal for auditors if applicable. The Election Committee also proposes the amount of the fees to be paid to the Board of Directors.

PRELIMINARY FINANCIAL CALENDAR

Annual General Meeting 2021	March 31, 2021
Report on the first quarter 2021	April 22, 2021
Report on the second quarter 2021	July 20, 2021
Report on the third quarter 2021	October 21, 2021

The reports are available on www.volvogroup.com and www.volvogroup.se on date of publication and are also sent electronically to shareholders who have advised Volvo that they wish to receive financial information.

Historical and current time series reflecting the Volvo Group's market information are published regularly on www.volvogroup.com and on www.volvogroup.se.

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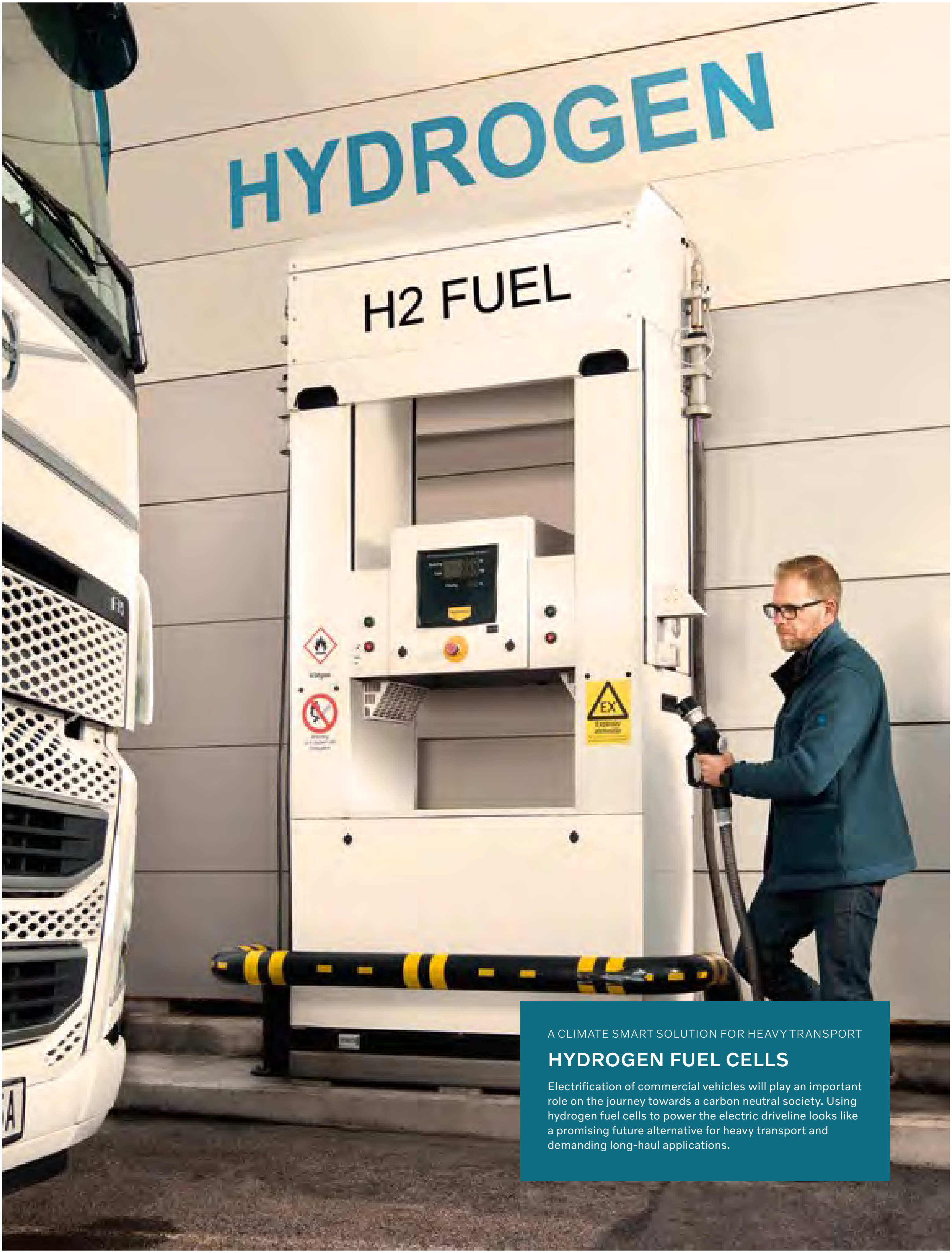

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The Volvo Group drives prosperity through transport and infrastructure solutions, offering trucks, buses, construction equipment, power solutions for marine and industrial applications, financing and services that increase our customers' uptime and productivity. Founded in 1927, the Volvo Group is committed to shaping the future landscape of sustainable transport and infrastructure solutions. The Volvo Group is headquartered in Gothenburg, Sweden, employs almost 100,000 people and serves customers in more than 190 markets. In 2020, net sales amounted to SEK 338 billion. Volvo shares are listed on Nasdaq Stockholm.

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AB Volvo, Investor Relations and Group Accounting