

general motors

2020 ANNUAL REPORT

UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, DC 20549

Form 10-K

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

For the fiscal year ended December 31, 2020

OR

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

For the transition period from to

Commission file number 001-34960



GENERAL MOTORS COMPANY

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of
incorporation or organization)

27-0756180

(I.R.S. Employer
Identification No.)

300 Renaissance Center, Detroit, Michigan

(Address of principal executive offices)

48265 -3000

(Zip Code)

(313) 667-1500

(Registrant's telephone number, including area code)

Not applicable

(Former name, former address and former fiscal year, if changed since last report)

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

<u>Title of each class</u>	<u>Trading Symbol(s)</u>	<u>Name of each exchange on which registered</u>
Common Stock, \$0.01 par value	GM	New York Stock Exchange

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

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

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

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

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

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

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

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

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

The aggregate market value of the voting stock held by non-affiliates of the registrant (assuming only for purposes of this computation that directors and executive officers may be affiliates) was approximately \$36.1 billion as of June 30, 2020.

As of January 29, 2021 there were 1,440,912,820 shares of common stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive Proxy Statement related to the Annual Stockholders Meeting to be filed subsequently are incorporated by reference into Part III of this Form 10-K.

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GENERAL MOTORS COMPANY AND SUBSIDIARIES

PART I

Item 1. Business

General Motors Company (sometimes referred to as we, our, us, ourselves, the Company, General Motors, or GM) was incorporated as a Delaware corporation in 2009. We design, build and sell trucks, crossovers, cars and automobile parts worldwide. Cruise is our global segment responsible for the development and commercialization of autonomous vehicle technology. We also provide automotive financing services through General Motors Financial Company, Inc. (GM Financial). Except for per share amounts or as otherwise specified, amounts presented within tables are stated in millions.

On July 31, 2017, we closed the sale of the Opel and Vauxhall businesses and certain other assets in Europe (the Opel/Vauxhall Business) to Peugeot, S.A. (PSA Group). On October 31, 2017, we closed the sale of the European financing subsidiaries and branches (the Fincos, and together with the Opel/Vauxhall Business, the European Business) to Banque PSA Finance S.A. and BNP Paribas Personal Finance S.A. The European Business is presented as discontinued operations in our consolidated financial statements for all periods presented. Unless otherwise indicated, information in this report relates to our continuing operations.

Automotive Our automotive operations meet the demands of our customers through our automotive segments: GM North America (GMNA) and GM International (GMI). GMNA meets the demands of customers in North America with vehicles developed, manufactured and/or marketed under the Buick, Cadillac, Chevrolet and GMC brands. GMI primarily meets the demands of customers outside North America with vehicles developed, manufactured and/or marketed under the Buick, Cadillac, Chevrolet, GMC and Holden brands. We also have equity ownership stakes in entities that meet the demands of customers in other countries, primarily in China, with vehicles developed, manufactured and/or marketed under the Baojun, Buick, Cadillac, Chevrolet and Wuling brands.

In addition to the vehicles we sell through our dealer network to retail customers, we also sell vehicles directly or through our dealer network to fleet customers, including daily rental car companies, commercial fleet customers, leasing companies and governments. Our customers can obtain a wide range of aftersale vehicle services and products through our dealer network, such as maintenance, light repairs, collision repairs, vehicle accessories and extended service warranties.

Refer to Management's Discussion and Analysis of Financial Condition and Results of Operations (MD&A) and Note 24 to our consolidated financial statements for financial information about our segments.

Competitive Position and Vehicle Sales The principal factors that determine consumer vehicle preferences in the markets in which we operate include overall vehicle design, price, quality, available options, safety, reliability, fuel economy and functionality. Market leadership in individual countries in which we compete varies widely.

We present both wholesale and total vehicle sales data to assist in the analysis of our revenue and our market share. Wholesale vehicle sales data consists of sales to GM's dealers and distributors as well as sales to the U.S. Government and excludes vehicles sold by our joint ventures. Wholesale vehicle sales data correlates to our revenue recognized from the sale of vehicles, which is the largest component of Automotive net sales and revenue. In the year ended December 31, 2020, 30.5% of our wholesale vehicle sales volume was generated outside the U.S. The following table summarizes wholesale vehicle sales by automotive segment (vehicles in thousands):

	Years Ended December 31,					
	2020		2019		2018	
GMNA	2,707	80.3 %	3,214	76.4 %	3,555	75.5 %
GMI	663	19.7 %	995	23.6 %	1,152	24.5 %
Total	<u>3,370</u>	<u>100.0 %</u>	<u>4,209</u>	<u>100.0 %</u>	<u>4,707</u>	<u>100.0 %</u>

Total vehicle sales data represents: (1) retail sales (i.e., sales to consumers who purchase new vehicles from dealers or distributors); (2) fleet sales, such as sales to large and small businesses, governments, and daily rental car companies; and (3) vehicles used by dealers in their businesses, including courtesy transportation vehicles. Total vehicle sales data includes all sales by joint ventures on a total vehicle basis, not based on our percentage ownership interest in the joint venture. Certain joint venture agreements in China allow for the contractual right to report vehicle sales of non-GM trademarked vehicles by those joint ventures, which are included in the total vehicle sales we report for China. While total vehicle sales data does not correlate

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directly to the revenue we recognize during a particular period, we believe it is indicative of the underlying demand for our vehicles. Total vehicle sales data represents management's good faith estimate based on sales reported by GM's dealers, distributors, and joint ventures, commercially available data sources such as registration and insurance data, and internal estimates and forecasts when other data is not available.

The following table summarizes industry and GM total vehicle sales and our related competitive position by geographic region (vehicles in thousands):

	Years Ended December 31,								
	2020			2019			2018		
	Industry	GM	Market Share	Industry	GM	Market Share	Industry	GM	Market Share
North America									
United States	14,924	2,547	17.1 %	17,499	2,887	16.5 %	17,721	2,954	16.7 %
Other	2,798	377	13.5 %	3,645	480	13.2 %	3,839	536	14.0 %
Total North America	17,722	2,924	16.5 %	21,144	3,367	15.9 %	21,560	3,490	16.2 %
Asia/Pacific, Middle East and Africa									
China(a)	24,922	2,901	11.6 %	25,398	3,094	12.2 %	26,519	3,645	13.7 %
Other	17,986	533	3.0 %	21,457	584	2.7 %	22,258	557	2.5 %
Total Asia/Pacific, Middle East and Africa	42,908	3,434	8.0 %	46,855	3,678	7.9 %	48,777	4,202	8.6 %
South America									
Brazil	2,057	338	16.4 %	2,787	476	17.1 %	2,566	434	16.9 %
Other	1,101	132	12.0 %	1,531	193	12.6 %	1,925	256	13.3 %
Total South America	3,158	470	14.9 %	4,318	669	15.5 %	4,491	690	15.4 %
Total in GM markets	63,788	6,828	10.7 %	72,317	7,714	10.7 %	74,828	8,382	11.2 %
Total Europe	14,795	1	— %	19,021	4	— %	18,928	4	— %
Total Worldwide(b)	78,583	6,829	8.7 %	91,338	7,718	8.5 %	93,756	8,386	8.9 %
United States									
Cars	3,366	239	7.1 %	4,632	389	8.4 %	5,206	560	10.7 %
Trucks	4,055	1,257	31.0 %	4,494	1,332	29.7 %	4,215	1,360	32.3 %
Crossovers	7,503	1,051	14.0 %	8,373	1,166	13.9 %	8,300	1,034	12.5 %
Total United States	14,924	2,547	17.1 %	17,499	2,887	16.5 %	17,721	2,954	16.7 %
China(a)									
SGMS		1,407			1,482			1,749	
SGMW		1,494			1,612			1,896	
Total China	24,922	2,901	11.6 %	25,398	3,094	12.2 %	26,519	3,645	13.7 %

(a) Includes sales by our Automotive China Joint Ventures (Automotive China JVs): SAIC General Motors Sales Co., Ltd. (SGMS) and SAIC GM Wuling Automobile Co., Ltd. (SGMW).

(b) Cuba, Iran, North Korea, Sudan and Syria are subject to broad economic sanctions. Accordingly these countries are excluded from industry sales data and corresponding calculation of market share.

In the year ended December 31, 2020, we estimate we were the market share leader in North America. Refer to the "Overview" section in Part II, Item 7. MD&A for discussion on changes in market share by region.

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As discussed above, total vehicle sales and market share data provided in the table above includes fleet vehicles. Certain fleet transactions, particularly sales to daily rental car companies, are generally less profitable than retail sales to end customers. The following table summarizes estimated fleet sales and those sales as a percentage of total vehicle sales (vehicles in thousands):

	Years Ended December 31,		
	2020	2019	2018
GMNA	493	741	740
GMI	351	498	478
Total fleet sales	844	1,239	1,218
Fleet sales as a percentage of total vehicle sales	12.4 %	16.1 %	14.5 %

Product Pricing Several methods are used to promote our products, including the use of dealer, retail and fleet incentives such as customer rebates and finance rate support. The level of incentives is dependent upon the level of competition in the markets in which we operate and the level of demand for our products.

Cyclical and Seasonal Nature of Business The market for vehicles is cyclical and depends in part on general economic conditions, credit availability and consumer spending. Vehicle markets are also seasonal. Production varies from month to month. Vehicle model changeovers occur throughout the year as a result of new market entries.

Relationship with Dealers We market vehicles and automotive parts worldwide primarily through a network of independent authorized retail dealers. These outlets include distributors, dealers and authorized sales, service and parts outlets. The number of authorized dealerships were 4,697 in GMNA and 7,661 in GMI at December 31, 2020.

We and our joint ventures enter into a contract with each authorized dealer agreeing to sell to the dealer one or more specified product lines at wholesale prices and granting the dealer the right to sell those vehicles to retail customers from an approved location. Our dealers often offer more than one GM brand at a single dealership in a number of our markets. Authorized dealers offer parts, accessories, service and repairs for GM vehicles in the product lines that they sell using GM parts and accessories. Our dealers are authorized to service GM vehicles under our limited warranty program, and those repairs are made only with GM parts. Our dealers generally provide their customers with access to credit or lease financing, vehicle insurance and extended service contracts provided by GM Financial and other financial institutions.

The quality of GM dealerships and our relationship with our dealers and distributors are critical to our success given that dealers maintain the primary sales and service interface with the end consumer of our products. In addition to the terms of our contracts with our dealers, we are regulated by various country and state franchise laws and regulations that may supersede those contractual terms and impose specific regulatory requirements and standards for initiating dealer network changes, pursuing terminations for cause and other contractual matters.

Research, Product and Business Development and Intellectual Property Costs for research, manufacturing engineering, product engineering and design and development activities primarily relate to developing new products or services or improving existing products or services, including activities related to vehicle and greenhouse gas (GHG) emissions control, improved fuel economy, electrification, autonomous vehicles, and the safety of drivers and passengers. Research and development expenses were \$6.2 billion, \$6.8 billion and \$7.8 billion in the years ended December 31, 2020, 2019 and 2018.

Product Development The Product Development organization is responsible for designing and integrating vehicle and propulsion components while aiming to maximize part sharing across multiple vehicle segments. Global teams in Design, Program Management, Component & Subsystem Engineering, Product Integrity, Safety, Propulsion Systems and Purchasing & Supply Chain collaborate to meet customer requirements and maximize global economies of scale.

Our global vehicle architecture development is headquartered at our Global Technical Center in Warren, Michigan. Cross-segment part sharing is an essential enabler to optimize our current vehicle portfolio, as we expect that more than 75% of our global sales volume will come from five vehicle architectures by mid-decade. We will continue to leverage our current architecture portfolio to accommodate our customers around the world while achieving our financial goals.

Battery Electric Vehicles We have committed to an all-electric future and are investing in multiple technologies offering increasing levels of vehicle electrification with a core focus on zero emission battery electric vehicles as part of our long-term strategy to reduce petroleum consumption and GHG emissions. We currently offer the Chevrolet Bolt EV, which has an

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Environmental Protection Agency (EPA)-estimated range of 259 miles on a full charge with the 2020 model year. We have also announced our all-new Ultium battery electric architecture capable of more than 400 miles of GM-estimated range on a full charge that will launch on the upcoming GMC Hummer EV in 2021, followed by the Cadillac LYRIQ in 2022 and additional models by 2025. This new platform will be flexible, allowing quick response to customer preferences with a shorter design and development lead time compared to our internal combustion engine vehicles. Ultium will be leveraged across multiple brands and vehicle sizes, styles and drive configurations. Our new electric vehicle assembly facilities will include Detroit-Hamtramck Assembly, renamed "Factory ZERO". In January 2020, we announced a \$2.2 billion investment in our Factory ZERO assembly plant, which is being re-tooled into a fully-dedicated electric vehicle facility to produce the GMC Hummer EV, Cruise Origin, a shared self-driving vehicle, and other electric vehicles. In October 2020, we also announced a \$2.0 billion investment in our Spring Hill Manufacturing facility in Tennessee, where we will build the Cadillac LYRIQ. In addition, we have announced plans to mass-produce battery cells for these and other future battery electric vehicles at Ultium Cells LLC (an equally owned joint venture with LG Chem, Ltd.) in Lordstown, Ohio.

To support mass market adoption of electric vehicles, we are working to ensure that our customers will have access to comprehensive charging solutions. For personal vehicles, this means strategically addressing charging needs at home, the workplace and in public locations. For fleet vehicles, this means turnkey charging solutions and fleet and facility energy management services. We have announced collaborative work with several charge network operators to filter real-time data on their respective networks and charge station health into our Energy Assist feature within the myChevrolet app, currently available to Chevrolet Bolt EV drivers.

In January 2021, we announced a new business, BrightDrop, which will offer an ecosystem of electric first-to-last mile products, software and services designed to help delivery and logistics companies deliver goods more efficiently. In addition, we plan to invest approximately CAD \$1.0 billion to convert our CAMI manufacturing plant in Ingersoll, Ontario to produce the BrightDrop EV600 electric cargo van.

Autonomous Technology We expect autonomous technology to lead to a future of zero crashes, zero emissions and zero congestion. We believe that building all-electric vehicles with autonomous capabilities integrated from the beginning, rather than through retrofits, is the most efficient way to unlock the tremendous potential societal benefits of self-driving cars. In January 2020, the Cruise Origin was unveiled by Cruise which is being co-developed by GM, Cruise and Honda Motor Company, Ltd. (Honda). The Cruise Origin will be built on General Motors' all-new modular architecture, powered by the Ultium battery system. In October 2020, Cruise received a permit from the California Department of Motor Vehicles to remove back-up drivers from Cruise AV test vehicles in San Francisco and subsequently began truly driverless testing. Also in October 2020, GM and Cruise announced they will file an exemption petition with the National Highway Traffic Safety Administration (NHTSA) seeking regulatory approval for the Origin's deployment, and have withdrawn an earlier exemption petition that was limited to the Cruise AVs derived from the Chevrolet Bolt platform. In January 2021, we announced that Microsoft Corporation (Microsoft) will join us and other investors in a \$2.2 billion investment in Cruise. Cruise may continue to opportunistically seek additional funding in this round in 2021. Given the potential of all-electric self-driving vehicles to help save lives, reshape our cities and reduce emissions, the goal of Cruise is to deliver its self-driving services as soon as possible, with safety being the gating metric.

Alternative Fuel Vehicles We believe alternative fuels offer significant potential to reduce petroleum consumption and resulting GHG emissions in the transportation sector. By leveraging experience and capability developed around these technologies in our global operations, we continue to develop FlexFuel vehicles that can run on ethanol-gasoline blend fuels as well as technologies that support compressed natural gas and liquefied petroleum gas. We offer several 2021 model year FlexFuel vehicles in the U.S. and Canada to retail and fleet customers capable of operating on gasoline, E85 ethanol or any combination of the two. We also support the development of biodiesel blend fuels, which are alternative diesel fuels produced from renewable sources.

Hydrogen Fuel Cell Technology Another part of our long-term strategy toward electrification and the reduction of petroleum consumption and GHG emissions is our commitment to the development of our Hydrotec hydrogen fuel cell technology. We believe hydrogen fuel cells will play an important role in many automotive applications, such as commercial vehicles, where customers will derive additional benefits from the ability to refuel quickly, extended range, and suitability for heavier payloads and central refueling of large fleets. GM is also evaluating promising fuel cell end-use applications for aerospace, stationary backup power and mobile power. In addition, GM and Honda, through their long-term strategic alliance to collaborate in research and advanced engineering efforts on fuel cell systems, are developing and commercializing fuel cell systems with production scheduled for the early 2020s. In January 2021, we announced an agreement to supply our Hydrotec fuel cell power cubes to Navistar for use in its production model fuel cell electric vehicle.

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OnStar and Vehicle Connectivity We offer OnStar and connected services to more than 22 million connected vehicles globally through subscription-based and complimentary services. We are among the leaders in the industry with significant global real-world experience in delivering connected services and advanced safety features. OnStar provides safety and security services for retail and fleet customers, including automatic crash response, emergency services, roadside assistance, crisis assist, stolen vehicle assistance and turn-by-turn navigation. We also offer a variety of connected services, including mobile applications for owners to remotely control certain vehicle features and electric vehicle owners to locate charging stations, on-demand vehicle diagnostics, GM Smart Driver, GM Marketplace in-vehicle commerce, Amazon Alexa in-vehicle voice, connected navigation, SiriusXM with 360L and 4G LTE wireless connectivity. We also offer Super Cruise, the industry's first hands-free driver assistance feature for enabled roads, which is powered by vehicle connectivity by means of a Super Cruise subscription. The Super Cruise plan enables real-time GPS and mapping updates and connects the vehicle to an OnStar emergency advisor for situations in which a driver is non-responsive to escalating alerts. Super Cruise will be expanded to be included on 22 models by 2023. Additionally, we have announced plans to integrate Google's Voice Assistant, navigation and app ecosystem into GM infotainment systems beginning in 2021.

Intellectual Property We are constantly innovating and hold a significant number of patents, copyrights, trade secrets and other intellectual property that protect those innovations in numerous countries. While no single piece of intellectual property is individually material to our business as a whole, our intellectual property is important to our operations and continued technological development. Additionally, we hold a number of trademarks and service marks that are very important to our identity and recognition in the marketplace.

Raw Materials, Services and Supplies We purchase a wide variety of raw materials, parts, supplies, energy, freight, transportation and other services from numerous suppliers to manufacture our products. The raw materials primarily include steel, aluminum, resins, copper, lead and precious metals. We have not experienced any significant shortages of raw materials and normally do not carry substantial inventories of these raw materials in excess of levels reasonably required to meet our production requirements. Costs are expected to remain elevated due to the price of commodities and the continuing existence of tariffs. We purchase systems, components and parts from suppliers. A global semiconductor supply shortage is having wide-ranging effects across multiple industries, particularly the automotive industry. Refer to Item 1A. Risk Factors for further discussion of this risk.

In some instances, we purchase systems, components, parts and supplies from a single source and may be at an increased risk for supply disruptions. The inability or unwillingness of these sources to provide us with parts and supplies could have a material adverse effect on our production capacity. Combined purchases from our two largest suppliers were approximately 11% of our total purchases in each of the years ended December 31, 2020 and 2019, and approximately 12% of our total purchases in the year ended December 31, 2018. Refer to Item 1A. Risk Factors for further discussion of these risks.

Environmental and Regulatory Matters

Automotive Criteria Emissions Control Our products are subject to laws and regulations globally that require us to control certain non-GHG automotive emissions, including vehicle and engine exhaust emission standards, vehicle evaporative emission standards and onboard diagnostic (OBD) system requirements. Emission requirements have become more stringent as a result of stricter standards and new diagnostic requirements that have come into force in many markets around the world, often with very little harmonization. While we believe all of our products are designed and manufactured in material compliance with substantially all vehicle emissions requirements, regulatory authorities may conduct ongoing evaluations of products from all manufacturers.

The U.S. federal government, through the EPA, imposes stringent exhaust and evaporative emission control requirements on vehicles sold in the U.S. The California Air Resources Board (CARB) likewise imposes stringent exhaust and evaporative emission standards. These emission control standards will likely increase the time and mileage periods over which manufacturers are responsible for a vehicle's emission performance. The Clean Air Act permits states that have areas with air quality compliance issues to adopt California emission standards in lieu of federal requirements. Fourteen states and the District of Columbia have adopted California emission standards, and there is a possibility that additional U.S. jurisdictions could adopt California emission requirements in the future.

The Canadian federal government's current vehicle pollutant emission requirements are generally aligned with U.S. federal requirements.

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Each model year we must obtain certification that our vehicles and heavy-duty engines will meet emission requirements of the EPA before we can sell vehicles in the U.S. and Canada, and of CARB before we can sell vehicles in California and other states that have adopted the California emission requirements.

In 2019, certain areas within China began implementation of the China 6 emission standard (China 6) requirements. China 6 combines elements of both European Union (EU) and U.S. standards and increases the time and mileage periods over which manufacturers are responsible for a vehicle's emission performance. Nationwide implementation of China 6a for new registrations occurred in January 2021, and the more stringent China 6b is expected to be implemented in July 2023. For additional information, refer to Item 1A. Risk Factors.

Brazil has approved a set of national emissions standards referred to as L7, to be implemented in 2022, and L8, to be implemented from 2025 onward. L7 standards include exhaust tailpipe gases, durability for emissions, evaporative emissions and noise limits, additional OBD requirements and a phase-in for onboard refueling vapor recovery systems. L8 standards include real drive emission targets for real driving emissions and reduce corporate exhaust limits every two years until 2031. Some of the requirements are aligned with those of the EPA.

As a result of the sale of the Opel/Vauxhall Business, GM's vehicle presence in Europe is smaller, but GM may still be affected by actions taken by regulators related both to Opel/Vauxhall vehicles sold before the sale of the Opel/Vauxhall Business as well as to other vehicles GM continues to sell in Europe. In the EU, increased scrutiny of compliance with emissions standards may result in changes to these standards, including implementation of real driving emissions tests, as well as stricter interpretations or redefinition of these standards and more rigorous enforcement. For example, our former German subsidiary has participated in continuing discussions with German and European authorities concerning emissions control systems. For additional information, refer to Note 22 to our consolidated financial statements.

Automotive Fuel Economy and Greenhouse Gas Emissions In the U.S., NHTSA promulgates and enforces Corporate Average Fuel Economy (CAFE) standards for three separate fleets: domestically produced cars, imported cars and light-duty trucks. Manufacturers are subject to substantial civil penalties if they fail to meet the applicable CAFE standard in any model year, after considering all available credits for the preceding five model years, expected credits for the three succeeding model years and credits obtained from other manufacturers. In addition to federal CAFE standards, the EPA promulgates and enforces GHG emission standards, which are effectively fuel economy standards because the majority of vehicle GHG emissions are carbon dioxide emissions that are emitted in direct proportion to the amount of fuel consumed by a vehicle. In March 2020, the EPA and NHTSA issued a rule setting fuel economy and GHG emissions standards for the light-duty vehicles through the 2026 model year, which is currently being challenged through litigation. On January 25, 2021, President Biden issued Executive Order 13990, directing the EPA and NHTSA to, by July 2021, consider publishing a proposed rule suspending, revising, or rescinding those standards, and has also permitted the Department of Justice to seek to stay or dispose of litigation challenging those standards. The EPA and NHTSA also regulate the fuel efficiency and GHG emissions of medium- and heavy-duty vehicles, imposing more stringent standards over time.

In addition, CARB has asserted the right to promulgate and enforce its own state GHG standards for motor vehicles, and other states have asserted the right to adopt CARB's standards. CARB regulations previously stated that compliance with the EPA light-duty program is deemed compliance with CARB standards. However, on December 12, 2018, CARB amended this regulation to state that, in the event the EPA were to alter federal GHG stringency, which it now has, compliance with the EPA's GHG emissions standards will no longer be deemed compliance with CARB's separate requirements. In September 2019, NHTSA and the EPA issued a rule asserting that California is preempted from regulating GHG emissions, which is currently being challenged through litigation. As a result, depending on the outcome of the federal CAFE and GHG rulemakings and related litigation and the finality of CARB's regulatory amendment, in the future GM might be required to meet California GHG standards that are different than the EPA standards.

CARB has also imposed the requirement that increasing percentages of Zero Emission Vehicles (ZEVs) must be sold in California. The Clean Air Act permits states to adopt California emission standards, and 11 have adopted the ZEV requirements. In September 2019, the EPA revoked the waiver it had granted to California that permitted its ZEV program, and NHTSA also asserted preemption of California's ZEV program. Both the EPA and NHTSA's actions are currently being challenged through litigation. Depending on the outcome of that litigation, there is a possibility that additional U.S. jurisdictions could adopt California ZEV requirements in the future.

On January 25, 2021, President Biden issued Executive Order 13990, directing EPA and NHTSA to, by April 2021, consider publishing a proposed rule suspending, revising, or rescinding EPA and NHTSA's September 2019 actions, and has also permitted the Department of Justice to stay or dispose of litigation related to preemption of state GHG and ZEV standards. On

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February 1, 2021, the Department of Justice filed a motion seeking to hold these preemption cases in abeyance pending implementation of Executive Order 13990.

In Canada, light- and heavy-duty GHG regulations are currently patterned after the EPA GHG emissions standards. However, the Canadian government is conducting a mid-term review of its 2022 to 2025 model year light-duty GHG standards and there is an increased risk that future Canadian light-duty GHG regulations may not be aligned with the revised EPA regulations. In addition, the Canadian province of Quebec has ZEV requirements regulating the 2018 to 2025 model years largely based on California program requirements. The province of British Columbia also finalized similar ZEV regulations in July 2020 that cover the 2020 to 2039 model years. There is also the risk that the federal government or other provinces in Canada may pursue the implementation of additional ZEV requirements in the future.

China has two fuel economy requirements for passenger vehicles: an individual vehicle pass-fail type approval requirement and a fleet average fuel consumption requirement. With a focus on the fleet average program, the current China Phase 4 fleet average fuel consumption requirement, which went into effect in 2016, is based on curb weight with full compliance required by 2020. China Phase 4 has continued subsidies for plug-in hybrid, battery electric and fuel cell vehicles, which are referred to as New Energy Vehicles (NEVs). Subsidies for NEV have been extended to the end of 2022. China Phase 5 has been developed with a planned start in 2021 and full compliance is required by 2025. In addition, China has established an NEV Mandate that will require passenger car manufacturers to produce a certain volume of NEVs to generate credits in 2019 and beyond to offset internal combustion engine vehicle production volume. The number of credits per car is based on the level of electric range and energy efficiency, with the goal of increasing NEV volume penetrations. Uncommitted NEV credits may be used to assist compliance with the fleet average fuel consumption requirement. China has issued NEV credit targets between 2019 and 2023 and is setting new NEV credit targets aiming at further increasing volumes of NEVs in 2024 and 2025.

In Brazil, the Secretary of Industry and Development promulgates and enforces CAFE standards and has enforced a new CAFE program for the period October 2020 to September 2026 and October 2026 to September 2032 for light-duty and mid-size trucks and sport utility vehicles (SUVs), including diesel vehicles, imposing more stringent standards for each period.

Regulators in other jurisdictions have already adopted or are developing fuel economy or carbon dioxide regulations. If regulators in these jurisdictions seek to impose and enforce standards that are misaligned with market conditions, we may be forced to take various actions to increase market support programs for certain vehicles and curtail production of others in order to achieve compliance. We regularly evaluate our current and future product plans and strategies for compliance with fuel economy and GHG regulations.

Industrial Environmental Control Our operations are subject to a wide range of environmental protection laws including those regulating air emissions, water discharge, waste management and environmental cleanup. Certain environmental statutes require that responsible parties fund remediation actions regardless of fault, legality of original disposal or ownership of a disposal site. Under certain circumstances these laws impose joint and several liability as well as liability for related damages to natural resources.

To mitigate the effects of our worldwide operations on the environment, we are embracing sustainability programs focused on reducing GHG emissions, water consumption and discharge and waste disposal. At December 31, 2020, 81% of waste materials generated in our manufacturing facilities across the globe are composted, reused or recycled. We estimate that our waste reduction program diverted 1.0 million metric tons of waste from landfills in 2020, and resulted in 4.6 million metric tons of GHG emissions avoided in global manufacturing operations.

In addition to reducing our impact on the environment, our waste reduction commitments generate income from the sale of production by-products, reduce our use of raw materials and help to reduce the risks and financial liabilities associated with waste disposal.

We continue our efforts to increase our use of renewable energy, improve our energy efficiency and work to drive growth and scale of renewables. We are committed to meeting the electricity needs of our operations worldwide with renewable energy by 2035, pulling forward our previous commitment by five years, and plan to be carbon neutral by 2040 in our global products and operations, supported by a commitment to science-based targets. In addition to our carbon goals, the company worked with the Environmental Defense Fund to develop a shared vision of an all-electric future and an aspiration to eliminate tailpipe emissions from new light-duty vehicles by 2035. Through December 31, 2020, we implemented projects and signed renewable energy contracts globally that brought our total renewable energy capacity to over one gigawatt by 2023, which represents approximately 60% of our U.S. electricity use and over 40% of our global electricity use. In 2019, we executed our largest

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green tariff to date with DTE Energy Company, sourcing 300,000 megawatt hours of renewable energy that will begin supplying us in early 2021. Additionally, in 2020 we executed our largest power purchase agreement to date, with 180 megawatts of solar electricity supplying our U.S. operations starting in 2023. We continue to seek opportunities for a diversified renewable energy portfolio including wind, solar, and landfill gas. In 2020, Energy Star certified two assembly plants, one in Canada through Natural Resources Canada and one in the U.S. as well as five buildings in the U.S. for superior energy management. We also met the EPA Energy Star Challenge for Industry (EPA Challenge) at six additional sites by reducing energy intensity an average of 14% at these sites within three years. To meet the EPA Challenge, industrial sites must reduce energy intensity by 10% within a five year period. In total, 69 GM-owned manufacturing sites have met the EPA Challenge, with many sites achieving the goal multiple times for a total of 129 recognitions. Additionally, we received recognition from the U.S. Department of Energy (DOE) of 50001 Ready status for 25 facilities. The U.S. DOE 50001 Ready program is a self-guided approach for facilities to establish an energy management system and self-attest to the structure of ISO 50001, a voluntary global standard for energy management systems in industrial, commercial and institutional facilities. These sustainability efforts reduce our operational expenses and are part of our approach to improve the sustainability of our operations by aligning our business strategy with aggressive environmental goals and reduction targets, collecting accurate data, and publicly reporting progress against our targets.

Chemical Regulations We continually monitor the implementation of chemical regulations to maintain compliance and evaluate their effect on our business, suppliers and the automotive industry.

Globally, governmental agencies continue to introduce new legislation and regulations related to the selection and use of chemicals by mandating broad prohibitions or restrictions and implementing green chemistry, life cycle analysis and product stewardship initiatives. These initiatives give broad regulatory authority to ban or restrict the use of certain chemical substances and potentially affect automobile manufacturers' responsibilities for vehicle components at the end of a vehicle's life, as well as chemical selection for product development and manufacturing. Global treaties and initiatives such as the Stockholm, Basel and Rotterdam Conventions on Chemicals and Waste and the Minamata Convention on Mercury, are driving chemical regulations across signatory countries. In addition, more global jurisdictions are establishing substance standards with regard to Vehicle Interior Air Quality.

Chemical regulations are increasing in North America. In the U.S. the EPA is moving forward with risk analysis and management of high priority chemicals under the authority of the 2016 Lautenberg Chemical Safety for the 21st Century Act, and several U.S. states have chemical management regulations that can affect vehicle design such as the California and Washington laws banning the use of copper in brake friction material. Chemical restrictions in Canada continue to steadily progress as a result of Environment and Climate Change Canada's Chemical Management Plan to assess existing substances and implement risk management controls on any chemical deemed toxic.

China prohibits the use of several chemical substances in vehicles. There are also various regulations in China stipulating the requirements for chemical management. Among other things, these regulations restrict the use, import and export of various chemical substances. The failure of our joint venture partners or our suppliers to comply with these regulations could disrupt production in China or prevent our joint venture partners from selling the affected products in the China market.

These emerging laws and regulations will potentially lead to increases in costs and supply chain complexity. We believe that we are materially in compliance with substantially all of these requirements or expect to be materially in compliance by the required dates.

Vehicle Safety

U.S. Requirements The National Traffic and Motor Vehicle Safety Act of 1966 (the Safety Act) regulates the vehicles and items of motor vehicle equipment that we manufacture and sell. The Safety Act prohibits the sale in the United States of any new vehicle or equipment that does not conform to applicable federal motor vehicle safety standards established by NHTSA. Meeting or exceeding the many safety standards is costly as global compliance and non-governmental assessment requirements continue to evolve and grow more complex, and lack harmonization globally. The Safety Act further requires that if we or NHTSA determine a vehicle or an item of vehicle equipment does not comply with a safety standard, or that vehicle or equipment contains a defect that poses an unreasonable safety risk, we must conduct a safety recall to remedy that condition in the affected vehicles. Should we or NHTSA determine a safety defect or noncompliance issue exists with respect to any of our vehicles, the cost of such recall campaigns could be substantial.

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Other National Requirements Outside of the U.S., many countries have established vehicle safety standards and regulations and are likely to adopt additional, more stringent requirements in the future. The European General Safety Regulation has introduced UN-ECE regulations, which are required for the European Type Approval process. Globally, governments generally have been adopting UN-ECE based regulations with some variations to address local concerns. Any difference between North American and UN-ECE based regulations can add complexity and costs to vehicle development, and we continue to support efforts to harmonize regulations to reduce complexity. New safety and recall requirements in various countries around the world, including in China, Brazil, and Gulf Cooperation Council countries, also may add substantial costs and complexity to our safety and field action activities globally. In Canada, vehicle regulatory requirements are currently aligned with U.S. regulations; however, under the Canadian Motor Vehicle Safety Act, recall thresholds are different and the Minister of Transport has broad powers to order manufacturers to submit a notice of defect or non-compliance when the Minister considers it to be in the interest of safety. Further, various governments are beginning to mandate e-Call and other features that can be market-specific and add complexity and increase our cost of compliance globally.

Crash Test Ratings and New Car Assessment Programs Organizations in various regions around the world, including in the U.S., rate and compare motor vehicles through various New Car Assessment Programs (NCAPs) to provide consumers and businesses with additional information about the safety of new vehicles. NCAPs use crash tests and other evaluations that are different than what is required by applicable regulations, and use stars to rate vehicle safety, with five stars awarded for the highest rating and one for the lowest. Achieving high NCAP ratings, which can vary by country and region, can add complexity and cost to vehicles.

Automotive Financing - GM Financial GM Financial is our global captive automotive finance company and our global provider of automobile finance solutions. GM Financial conducts its business in North America, South America and through joint ventures in China.

GM Financial provides retail loan and lease lending across the credit spectrum. Additionally, GM Financial offers commercial lending products to dealers including floorplan financing, which is lending to finance new and used vehicle inventory; and dealer loans, which are loans to finance improvements to dealership facilities, to provide working capital, and to purchase and/or finance dealership real estate. Other commercial lending products include financing for parts and accessories, dealer fleets and storage centers.

In North America, GM Financial offers a sub-prime lending program. The program is primarily offered to consumers with a FICO score or its equivalent of less than 620 who have limited access to automobile financing through banks and credit unions and is expected to sustain a higher level of credit losses than prime lending.

GM Financial generally seeks to fund its operations in each country through local sources to minimize currency and country risk. GM Financial primarily finances its loan, lease and commercial origination volume through the use of secured and unsecured credit facilities, through securitization transactions and through the issuance of unsecured debt in the capital markets.

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Human Capital The foundation of GM's business is our vision – a world with zero crashes, zero emissions and zero congestion. Our people are our most valuable asset, and we must continue to attract and retain the best talent in the world in order to achieve this vision. As a result, we strive to create a Workplace of Choice to attract, retain and develop top talent by adhering to a responsible employer philosophy, which includes, among other things, commitments to create job opportunities, pay workers fairly, ensure safety and well-being, and promote diversity, equity and inclusion. Fundamental to these commitments are our company values.

OUR VALUES

CUSTOMERS

We put the customer at the center of everything we do. We listen intently to our customers' needs. Each interaction matters. Safety and quality are foundational commitments, never compromised.

EXCELLENCE

We act with integrity. We are driven by ingenuity and innovation. We have the courage to do and say what's difficult. Each of us takes accountability for results, drives for continued efficiencies and has the tenacity to win.

RELATIONSHIPS

Our success depends on our relationships inside and outside the company. We encourage diverse thinking and collaboration from the world to create great customer experiences.

SEEK TRUTH

We pursue facts, respectfully challenge assumptions and clearly define objectives. When we disagree, we provide additional context and consider multiple perspectives.

Our eight GM behaviors are the foundation of our culture; and how we behave encompasses key measures of our performance, including the visible ways we conduct ourselves as we work with one another.

EMPLOYEE BEHAVIORS



Be Inclusive

I create moments every day that value backgrounds, opinions and ideas that may be different than my own.



Think Customer

I consider the customers' needs in everything I do.



Innovate Now

I see things not as they are but as they could be.



Look Ahead

I make decisions now with the long-term view in mind and I anticipate what lies ahead.



One Team

I collaborate cross-functionally to achieve enterprise-wide results.



Be Bold

I respectfully speak up, exchange feedback and boldly share ideas without fear.



It's On Me

I take accountability for safety and my own actions, behaviors and results.



Win With Integrity

I have a relentless desire to win and do it with integrity.

Diversity, equity and inclusion At GM, we are committed to fostering a culture of diversity, equity and inclusion. In every moment, we must decide what we can do – individually and collectively – to drive meaningful deliberate change. GM's unwavering position includes a commitment to inclusion, an unequivocal condemnation of intolerance, and a commitment to stand up against injustice. Our ability to meet the needs of a diverse and global customer base is tied closely to the behaviors of the people within our company, which is why we are committed to fostering a culture that celebrates our differences.

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Based on these longstanding values, our Chairman and CEO, Mary Barra, chairs an Inclusion Advisory Board (IAB) of 11 internal and external leaders who guide our work to improve diversity and inclusion in our company. The purpose of the IAB is to consult with GM's Senior Leadership Team with the long-term goal of inspiring the company to be inclusive through our words, deeds and culture.

We also have a number of programs and partnerships aimed at enhancing our culture of inclusion throughout the company. For example, we have 11 voluntary, employee-led resource groups that provide a forum for diverse employees and allies from a variety of different backgrounds to share experiences and express concerns. Each group also works to attract new talent to our company and offers employees opportunities to support our company's diversity initiatives within the community.

In addition, we are expanding our partnerships with organizations aimed at supporting our ongoing efforts to increase the representation of women and minorities in our workplace. Through our participation in the OneTen organization and Business Roundtable Multiple Pathways initiative, for example, we are specifically aiming to build more robust pipelines for skills-based hiring into our company. Working in concert with local organizations, such efforts are intended to create new pathways to employment for individuals without four-year degrees, provide training opportunities for advancement, and create a more flexible and inclusive talent pipeline.

Develop and Retain Talented People Today, we compete for talent against other automotive companies and, increasingly, against businesses in other sectors, such as technology. To win and keep talent, we must provide a workplace culture that encourages employee behaviors aligned with our values, fulfills their long-term individual aspirations and achieves full engagement. In furtherance of this goal, we invest significant resources to retain and develop our talent. In addition to mentoring and networking opportunities, we offer a vast array of career development resources to help develop, grow and enable employees to make the most of their careers at GM. Such resources include, among other things, the Technical Education Program, which offers our employees an opportunity to complete corporate strategically aligned degrees and certificate programs at leading universities, our Learning Management System with access to ongoing learning resources to augment and enrich employees' professional development and *Percipio Resources*, which provides our employees with access to a full range of videos, books, and eBooks to develop and enhance skills. Employees in some of our technical roles also have the opportunity to participate in the GM Technical Learning University — a training and upskilling program designed to expand and update the technical prowess of our workforce.

Safety and well-being The safety and well-being of our employees is also a critical component of our ability to transform the future of personal mobility. At GM, we pride ourselves on our commitment to live values that return people home safely — Every Person, Every Site, Every Day. Our unwavering commitment to safety is manifested through empowering employees to "Speak Up for Safety" through various means without fear of retaliation. The well-being of our employees is equally as important to entice and stimulate creativity and innovation. In addition to traditional healthcare, paid time off, paid parental leave, wellness programs, flextime scheduling and telecommuting arrangements and retirement benefits, including a 401(k) matching program, GM offers a variety of benefits and resources to support employees physical and mental health, including on-site fitness facilities and a health concerns hotline, which help us both attract talent and reap the benefits of a healthier workforce.

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Employees At December 31, 2020, we employed approximately 87,000 (56%) hourly employees and approximately 68,000 (44%) salaried employees. At December 31, 2020, approximately 46,000 (49%) of our U.S. employees were represented by unions, a majority of which were represented by the International Union, United Automobile, Aerospace and Agriculture Implement Workers of America (UAW). The following table summarizes worldwide employment (in thousands):

	December 31, 2020
GMNA(a)	112
GMI	34
GM Financial	9
Total Worldwide	155
U.S. - Salaried	48
U.S. - Hourly	46

(a) Includes Cruise.

Information About our Executive Officers As of February 10, 2021, the names and ages of our executive officers and their positions with GM are as follows:

Name (Age)	Present GM Position (Effective Date)	Positions Held During the Past Five Years (Effective Date)
Mary T. Barra (59)	Chairman and Chief Executive Officer (2016)	
Julian Blissett (54)	Executive Vice President and President, GM China (2020)	Senior Vice President, International Operations (2019) Vice President, Executive Shanghai GM (2014)
Stephen K. Carlisle (58)	Executive Vice President and President, North America (2020)	Senior Vice President and President, Cadillac (2018) President and Managing Director, GM Canada (2015)
Craig B. Glidden (63)	Executive Vice President and General Counsel (2015)	
Christopher T. Hatto (50)	Vice President, Global Business Solutions and Chief Accounting Officer (2020)	Vice President, Controller and Chief Accounting Officer (2018) Chief Financial Officer, U.S. Sales Operations (2016)
Paul A. Jacobson (49)	Executive Vice President and Chief Financial Officer (2020)	Delta Air Lines, Executive Vice President — Chief Financial Officer (2013)
Gerald Johnson (58)	Executive Vice President, Global Manufacturing (2019)	Vice President, North America Manufacturing and Labor Relations (2017) Vice President of Operational Excellence (2014)
Randall D. Mott (64)	Executive Vice President, Global Information Technology and Chief Information Officer (2019)	Senior Vice President, Global Information Technology and Chief Information Officer (2013)
Douglas L. Parks (59)	Executive Vice President, Global Product Development, Purchasing and Supply Chain (2019)	Vice President, Autonomous and Electric Vehicles (2017) Vice President, Autonomous Technology and Vehicle Execution (2016)
Mark L. Reuss (57)	President (2019)	Executive Vice President and President, Global Product Development Group and Cadillac (2018) Executive Vice President, Global Product Development, Purchasing & Supply Chain (2014)
Matthew Tsien (60)	Executive Vice President and Chief Technology Officer (2020)	Executive Vice President and President, GM China (2014)

There are no family relationships between any of the officers named above and there is no arrangement or understanding between any of the officers named above and any other person pursuant to which he or she was selected as an officer. Each of the officers named above was elected by the Board of Directors to hold office until his or her successor is elected and qualified or until his or her earlier resignation or removal.

Website Access to Our Reports Our internet website address is www.gm.com. In addition to the information about us and our subsidiaries contained in this 2020 Form 10-K, information about us can be found on our website including information on our corporate governance principles and practices. Our Investor Relations website at <https://investor.gm.com> contains a significant

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amount of information about us, including financial and other information for investors. We encourage investors to visit our website, as we frequently update and post new information about our company on our website and it is possible that this information could be deemed to be material information. Our website and information included in or linked to our website are not part of this 2020 Form 10-K.

Our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended (Exchange Act), are available free of charge through our website as soon as reasonably practicable after they are electronically filed with or furnished to the Securities and Exchange Commission (SEC). The SEC maintains a website that contains reports, proxy and information statements, and other information regarding our filings at <http://www.sec.gov>.

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Item 1A. Risk Factors

We have listed below the most material risk factors applicable to us. These risk factors are not necessarily in the order of importance or probability of occurrence:

Risks related to our competition and strategy

If we do not deliver new products, services and customer experiences in response to increased competition and changing consumer preferences in the automotive industry, our business could suffer. We believe that the automotive industry will continue to experience significant change in the coming years, particularly as traditional automotive original equipment manufacturers (OEMs) shift resources to the development of electric vehicles. In addition to our traditional competitors, we must also be responsive to the entrance of non-traditional participants in the automotive industry. Industry participants are disrupting the historic business model of our industry through the introduction of new technologies, products, services, direct-to-consumer sales channels, methods of transportation and vehicle ownership. It is a strategic imperative that we succeed in driving the technological disruption occurring in our industry, including consumer adoption of electric vehicles and commercialization of autonomous vehicles. To successfully execute our long-term strategy, we must continue to develop new products and services, including products and services that are outside of our historically core business, such as autonomous and electric vehicles, digital services and transportation as a service. The process of designing and developing new technology, products and services is complex, costly and uncertain and requires extensive capital investment and the ability to retain and recruit the best talent. There can be no assurance that advances in technology will occur in a timely or feasible way, that others will not acquire similar or superior technologies sooner than we do, or that we will acquire technologies on an exclusive basis or at a significant price advantage. If we do not adequately prepare for and respond to new kinds of technological innovations, market developments and changing customer needs, our sales, profitability and long-term competitiveness may be harmed.

Our ability to maintain profitability is dependent upon our ability to timely fund and introduce new and improved vehicle models, including electric vehicles, that are able to attract a sufficient number of consumers. We operate in a very competitive industry with market participants routinely introducing new and improved vehicle models and features designed to meet rapidly evolving consumer expectations. Producing new and improved vehicle models, including electric vehicles, that preserve our reputation for designing, building and selling safe, high-quality cars and trucks is critical to our long-term profitability. Successful launches of our new vehicles are critical to our short-term profitability. The new vehicle development process generally takes two years or more, and a number of factors may lengthen that time period. Because of this product development cycle and the various elements that may contribute to consumers' acceptance of new vehicle designs, including competitors' product introductions, technological innovations, fuel prices, general economic conditions, infrastructure and changes in quality, safety, reliability and styling demands and preferences, an initial product concept or design may not result in a vehicle that generates sales in sufficient quantities and at high enough prices to be profitable. Our high proportion of fixed costs, both due to our significant investment in property, plant and equipment as well as other requirements of our collective bargaining agreements, which limit our flexibility to adjust personnel costs to changes in demands for our products, may further exacerbate the risks associated with incorrectly assessing demand for our vehicles.

Our near-term profitability is dependent upon the success of our current line of full-size SUVs and pickup trucks. While we offer a portfolio of cars, crossovers, SUVs and trucks, and we have announced significant plans to design, build and sell a broad portfolio of electric vehicles, we currently recognize higher profit margins on our SUVs and trucks. Our near-term success is dependent upon our ability to sell higher margin vehicles in sufficient volumes. Any near-term shift in consumer preferences toward smaller, more fuel-efficient vehicles, whether as a result of increases in the price of oil or any sustained shortage of oil, including as a result of global political instability, concerns about climate change or other reasons, could weaken the demand for our higher margin vehicles. More stringent fuel economy regulations could also impact our ability to sell these vehicles.

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We operate in a highly competitive industry that has excess manufacturing capacity, and attempts by our competitors to sell more vehicles could have a significant negative effect on our vehicle pricing, market share and operating results. The global automotive industry is highly competitive in terms of the quality, innovation, new technologies, pricing, fuel economy, reliability, safety, customer service and financial services offered. Additionally, overall manufacturing capacity in the industry far exceeds current demand. Many manufacturers, including GM, have relatively high fixed labor costs as well as limitations on their ability to close facilities and reduce fixed costs. In light of such excess capacity and high fixed costs, many industry participants have attempted to sell more vehicles by providing subsidized financing or leasing programs, offering marketing incentives or reducing vehicle prices. As a result, we may be required to offer similar incentives that may result in vehicle prices that do not offset cost increases or the impact of adverse currency fluctuations, which could affect our profitability. Our competitors may also seek to benefit from economies of scale by consolidating or entering into other strategic agreements such as alliances or joint ventures intended to enhance their competitiveness.

Manufacturers in countries that have lower production costs, such as China and India, have become competitors in key emerging markets and have announced their intention to export their products to established markets as a low-cost alternative to established entry-level automobiles. In addition, foreign governments may decide to implement tax and other policies that favor their domestic manufacturers at the expense of international manufacturers, including GM and its joint venture partners. These actions have had, and are expected to continue to have, a significant negative effect on our vehicle pricing, market share and operating results.

Our long-term strategy is dependent upon our ability to deliver a broad portfolio of electric vehicles that will drive consumer adoption. The production and profitable sale of electric vehicles has become increasingly important to our long-term business as we accelerate our transition to an all-electric future. In 2020, we announced the commitment of \$27 billion in investments in electric and autonomous vehicle technologies through 2025, with plans to launch 30 new electric vehicle models globally in that timeframe. Our electric vehicle strategy is dependent on our ability to deliver a broad portfolio of electric vehicles; reduce the costs associated with the manufacture of electric vehicles; increase vehicle range and the energy density of our batteries; license and monetize our proprietary platforms; develop new software and services; and leverage our scale, manufacturing capabilities and synergies with existing internal combustion engine vehicles. In addition, consumer adoption of electric vehicles will be critical to the success of our strategy. Consumer adoption of electric vehicles could be impacted by numerous factors, including the breadth of the portfolio of electric vehicles available; perceptions about electric vehicle features, quality, safety, performance and cost relative to internal combustion engine vehicles; the range over which electric vehicles may be driven on a full battery charge; availability of high fuel-economy internal combustion engine vehicles; volatility in the cost of fuel; government regulations and economic incentives; and the proliferation of a robust, open-standard electric vehicle charging ecosystem. If we are unable to successfully deliver on our electric vehicle strategy, it could materially and adversely affect our results of operations, financial condition and growth prospects.

Our autonomous vehicle strategy is dependent upon our ability to successfully mitigate unique technological, operational, and regulatory risks. In recent years, we announced significant investments in autonomous vehicle technologies, including in GM Cruise Holdings LLC (Cruise Holdings), our majority-owned subsidiary that is responsible for the development and commercialization of autonomous vehicle technology. Our autonomous vehicle operations are capital intensive and subject to a variety of risks inherent with the development of new technologies, including our ability to continue to develop self-driving software and hardware, such as Light Detection and Ranging (LiDAR) sensors and other components; access to sufficient capital, including with respect to additional Softbank funding; risks related to the manufacture of purpose-built autonomous vehicles; and significant competition from both established automotive companies and technology companies, some of which may have more resources and capital to devote to autonomous vehicle technologies than we do. In addition, we face risks related to the commercial deployment of autonomous vehicles on our targeted timeline or at all, including consumer acceptance, achievement of adequate safety and other performance standards and compliance with uncertain, evolving and potentially conflicting federal and state or provincial regulations. To the extent accidents, cybersecurity breaches or other adverse events associated with our autonomous driving systems occur, we could be subject to liability, government scrutiny and further regulation, and it could deter consumer adoption of autonomous vehicle technology. Any of the foregoing could materially and adversely affect our results of operations, financial condition and growth prospects.

Risks related to our operations

The COVID-19 pandemic may disrupt our business and operations, which could materially adversely impact our business, financial condition, liquidity and results of operations. Pandemics, epidemics or disease outbreaks in the U.S. or globally may disrupt our business, which could materially affect our results of operations, financial condition, liquidity and future expectations. The COVID-19 outbreak has caused significant disruption to the global economy, including the automotive industry, and has had a material impact on our business as discussed in detail in Part II, Item 7. MD&A. However, the full extent to which the COVID-19 pandemic will impact our operations will depend on future developments, including the duration and severity of the outbreak, any subsequent outbreaks and the timing and efficacy of any available vaccines. Future developments are highly uncertain and cannot be predicted with confidence and may adversely impact our global supply chain and global manufacturing operations and cause us to again suspend our operations in the U.S. and elsewhere. In particular, if

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COVID-19 continues to spread or re-emerges, particularly in North America where our profits are most concentrated, resulting in a prolonged period of travel, commercial, social and other similar restrictions, we could experience among other things: (1) global supply disruptions; (2) labor disruptions; (3) an inability to manufacture; (4) an inability to sell to our customers; (5) a decline in showroom traffic and customer demand during and following the pandemic; (6) customer defaults on automobile loans and leases; (7) lower than expected pricing on vehicles sold at auction; and (8) an impaired ability to access credit and the capital markets. We may also be subject to enhanced legal risks, including potential litigation related to the COVID-19 pandemic. We also have substantial cash requirements going forward, including: (1) ongoing cash costs including payments associated with previously announced vehicle recalls, the settlements of multi-district litigation and other recall-related contingencies, payments to service debt and other long-term obligations, including mandatory contributions to our pension plans; and (2) capital expenditures and payments for engineering and product development activities. Our ability to meet these cash requirements may be negatively impacted by the ongoing COVID-19 pandemic. Any resulting financial impact cannot be reasonably estimated at this time, but the COVID-19 pandemic could have a material impact on our business, financial condition and results of operations going forward. For a further discussion of the impact of the COVID-19 pandemic on our liquidity, refer to the "Liquidity and Capital Resources" section in Part II, Item 7. MD&A.

Our business is highly dependent upon global automobile market sales volume, which can be volatile. Because we have a high proportion of relatively fixed structural costs, small changes in sales volume can have a disproportionately large effect on our profitability. A number of economic and market conditions drive changes in new vehicle sales, including the availability and prices of used vehicles, levels of unemployment, availability of affordable financing, fluctuations in the cost of fuel, consumer confidence, real estate values, political unrest, the occurrence of a contagious disease or illness, including COVID-19 (see "The COVID-19 pandemic may disrupt our business and operations, which could materially adversely impact our business, financial condition, liquidity and results of operations" in this Item 1A, Risk Factors), barriers to trade and other global economic conditions. For a discussion of economic and market trends, see the "Overview" section in Part II, Item 7. MD&A.

Our significant business in China subjects us to unique operational, competitive and regulatory risks. Maintaining a strong position in the Chinese market is a key component of our global growth strategy. Our business in China is subject to aggressive competition from many of the largest global manufacturers and numerous domestic manufacturers as well as non-traditional market participants, such as domestic technology companies. In addition, our success in China depends upon our ability to adequately address unique market and consumer preferences driven by advancements related to electric vehicles, infotainment and other new technologies. Our ability to fully deploy our technologies in China may be impacted by evolving laws and regulations in the U.S. and China. Increased competition, increased U.S.-China trade restrictions and weakening economic conditions in China, among other things, may result in price reductions, reduced sales, profitability and margins, and challenges to gain or hold market share. In addition, Chinese regulators have implemented increasingly aggressive "green" policy initiatives requiring OEMs to reduce the average emissions and average fuel consumption of their products and to achieve quotas for the sale of electric vehicles, which have challenging lead times.

Certain risks and uncertainties of doing business in China are solely within the control of the Chinese government, and Chinese law regulates the scope of our investments and business conducted within China. In order to maintain access to the Chinese market, we may be required to comply with significant technical and other regulatory requirements that are unique to the Chinese market, at times with challenging lead times to implement such requirements. These actions may increase the cost of doing business in China and reduce our profitability.

A significant amount of our operations are conducted by joint ventures that we cannot operate solely for our benefit. Many of our operations, primarily in China and Korea as well as our battery manufacturing operations with LG Chem, are carried out by joint ventures. In joint ventures we share ownership and management of a company with one or more parties who may not have the same goals, strategies, priorities or resources as we do and may compete with us outside the joint venture. Joint ventures are intended to be operated for the equal benefit of all co-owners, rather than for our exclusive benefit. Operating a business as a joint venture often requires additional organizational formalities as well as time-consuming procedures for sharing information and making decisions that must further take into consideration our partners' interests. In joint ventures we are required to foster our relationships with our co-owners as well as promote the overall success of the joint venture, and if a co-owner changes, relationships deteriorate or strategic objectives diverge, our success in the joint venture may be materially adversely affected. The benefits from a successful joint venture are shared among the co-owners, therefore we do not receive all the benefits from our successful joint ventures.

In addition, because we share ownership and management with one or more parties, we may have limited control over the actions of a joint venture, particularly when we own a minority interest. As a result, we may be unable to prevent violations of applicable laws or other misconduct by a joint venture or the failure to satisfy contractual obligations by one or more parties. Moreover, a joint venture may not follow the same requirements regarding compliance, internal controls and internal control over financial reporting that we follow. To the extent another party makes decisions that negatively impact the joint venture or internal control issues arise within the joint venture, we may have to take responsive actions, or we may be subject to penalties, fines or other punitive actions for these activities.

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The international scale and footprint of our operations expose us to additional risks. We manufacture, sell and service products globally and rely upon an integrated global supply chain to deliver the raw materials, components, systems and parts that we need to manufacture our products. Our global operations subject us to extensive domestic and foreign legal and regulatory requirements, and a variety of other political, economic and regulatory risks including: (1) changes in government leadership; (2) changes in labor, employment, tax, privacy, environmental and other laws, regulations or government policies impacting our overall business model or practices or restricting our ability to manufacture, purchase or sell products consistent with market demand and our business objectives; (3) political pressures to change any aspect of our business model or practices or that impair our ability to source raw materials, services, components, systems and parts, or manufacture products on competitive terms in a manner consistent with our business objectives; (4) political instability, civil unrest or government controls over certain sectors; (5) political and economic tensions between governments and changes in international trade policies, including restrictions on the repatriation of dividends or in the export of technology, especially between China and the U.S.; (6) more detailed inspections or new or higher tariffs, for example, on products imported into or exported from the U.S., including under Section 232 of the Trade Expansion Act of 1962, Section 301 of the U.S. Trade Act of 1974, or other trade measures; (7) new barriers to entry or domestic preference procurement requirements, including changes to, withdrawals from or impediments to implementing free trade agreements (for example, the United States-Mexico-Canada Agreement), or preferences of foreign nationals for domestically manufactured products; (8) changes in foreign currency exchange rates, particularly in Brazil and Argentina, and interest rates; (9) economic downturns or significant changes in conditions in the countries in which we operate; (10) differing local product preferences and product requirements, including government certification requirements related to, among other things, fuel economy, vehicle emissions and safety; (11) impact of changes to and compliance with U.S. and foreign countries' export controls, economic sanctions and other similar measures; (12) liabilities resulting from U.S. and foreign laws and regulations, including, but not limited to, those related to the Foreign Corrupt Practices Act and certain other anti-corruption laws; (13) differing labor regulations, requirements and union relationships; (14) differing dealer and franchise regulations and relationships; (15) difficulties in obtaining financing in foreign countries for local operations; and (16) natural disasters, public health crises, including the occurrence of a contagious disease or illness, such as COVID-19 (see "The COVID-19 pandemic may disrupt our business and operations, which could materially adversely impact our business, financial condition, liquidity and results of operations" in this Item 1A, Risk Factors), and other catastrophic events.

Any significant disruption at one of our manufacturing facilities could disrupt our production schedule. We assemble vehicles at various facilities around the world. Our facilities are typically designed to produce particular models for particular geographic markets. No single facility is designed to manufacture our full range of vehicles. In some cases, certain facilities produce products, systems, components and parts that disproportionately contribute a greater degree to our profitability than others and create significant interdependencies among manufacturing facilities around the world. Should these or other facilities become unavailable either temporarily or permanently for any number of reasons, including labor disruptions, the occurrence of a contagious disease or illness, such as COVID-19 (see "The COVID-19 pandemic may disrupt our business and operations, which could materially adversely impact our business, financial condition, liquidity and results of operations" in this Item 1A, Risk Factors), or catastrophic weather events, the inability to manufacture at the affected facility may result in harm to our reputation, increased costs, lower revenues and the loss of customers. In particular, substantially all of our hourly employees are represented by unions and covered by collective bargaining agreements that must be negotiated from time-to-time, often at the local facility level, which increases our risk of work stoppages. We may not be able to easily shift production to other facilities or to make up for lost production. Any new facility needed to replace an inoperable manufacturing facility would need to comply with the necessary regulatory requirements, need to satisfy our specialized manufacturing requirements and require specialized equipment.

Any disruption in our suppliers' operations could disrupt our production schedule. Our automotive operations are dependent upon the continued ability of our suppliers to deliver the systems, components, raw materials and parts that we need to manufacture our products. Our use of "just-in-time" manufacturing processes allows us to maintain minimal inventory. As a result, our ability to maintain production is dependent upon our suppliers delivering sufficient quantities of systems, components, raw materials and parts on time to meet our production schedules. In some instances, we purchase systems, components, raw materials and parts that are ultimately derived from a single source and may be at an increased risk for supply disruptions. Any number of factors, including labor disruptions, catastrophic weather events, the occurrence of a contagious disease or illness, such as COVID-19 (see "The COVID-19 pandemic may disrupt our business and operations, which could materially adversely impact our business, financial condition, liquidity and results of operations" in this Item 1A, Risk Factors), contractual or other disputes, unfavorable economic or industry conditions, delivery delays or other performance problems or financial difficulties or solvency problems, could disrupt our suppliers' operations and lead to uncertainty in our supply chain or cause supply disruptions for us, which could, in turn, disrupt our operations, including the production of certain higher margin vehicles. If the COVID-19 pandemic continues to spread or re-emerges and results in a prolonged period of travel, commercial, social and other similar restrictions, we could experience continued and/or additional global supply disruptions. If we experience supply disruptions, we may not be able to develop alternate sourcing quickly. Any disruption of our production schedule caused by an unexpected shortage of systems, components, raw materials or parts even for a relatively short period of time could cause us to alter production schedules or suspend production entirely, which could cause a loss of revenues, which would adversely affect our operations.

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In particular, a global semiconductor supply shortage is having wide-ranging effects across multiple industries, particularly the automotive industry, and it has impacted multiple suppliers that incorporate semiconductors into the parts they supply to us. As a result, the semiconductor supply shortage has had, and will continue to have, an impact on our vehicle production, and we anticipate it will have a material impact on our performance in 2021.

High prices of raw materials or other inputs used by us and our suppliers could negatively impact our profitability. Increases in prices for raw materials or other inputs that we and our suppliers use in manufacturing products, systems, components and parts, such as steel, precious metals, non-ferrous metals, critical minerals or other similar raw materials, may lead to higher production costs for parts, components and vehicles. Changes in trade policies and tariffs, fluctuations in supply and demand and other economic and political factors may continue to create pricing pressure for raw materials and other inputs. This could, in turn, negatively impact our future profitability because we may not be able to pass all of those costs on to our customers or require our suppliers to absorb such costs.

We may continue to restructure our operations in the U.S. and various other countries and initiate additional cost reduction actions, but we may not succeed in doing so. Since 2017, we have undertaken restructuring actions to lower our operating costs in response to difficult market and operating conditions in various parts of the world, including the U.S., Canada, Korea, Southeast Asia, India, Australia and New Zealand and Europe. As we continue to assess our performance throughout our regions, we may take additional restructuring actions to rationalize our operations, which may result in material asset write-downs or impairments and reduce our profitability in the periods incurred. In addition, we are continuing to implement a number of operating effectiveness initiatives to improve productivity and reduce costs. In addition, these restructuring actions subject us to increased risks of labor unrest or strikes, supplier, dealer, or other third-party litigation, regulator claims or proceedings, negative publicity and business disruption. Failure to realize anticipated savings or benefits from our restructuring and/or cost reduction actions could have a material adverse effect on our business, liquidity and cash flows.

Risks related to our intellectual property, cybersecurity, information technology and data management practices

Competitors may independently develop products and services similar to ours, and there are no guarantees that GM's intellectual property rights would prevent competitors from independently developing or selling those products and services. There may be instances where, notwithstanding our intellectual property position, competitive products or services may impact the value of our brands and other intangible assets, and our business may be adversely affected. Moreover, although GM takes reasonable steps to maintain the confidentiality of GM proprietary information, there can be no assurance that such efforts will completely deter or prevent misappropriation or improper use of our technology. We sometimes face attempts to gain unauthorized access to our information technology networks and systems for the purpose of improperly acquiring our trade secrets or confidential business information. The theft or unauthorized use or publication of our trade secrets and other confidential business information as a result of such an incident could adversely affect our competitive position. In addition, we may be the target of patent enforcement actions by third parties, including aggressive and opportunistic enforcement claims by non-practicing entities. Regardless of the merit of such claims, responding to infringement claims can be expensive and time-consuming. Although we have taken steps to mitigate such risks, if we are found to have infringed any third-party intellectual property rights, we could be required to pay substantial damages, or we could be enjoined from offering some of our products and services.

Security breaches and other disruptions to information technology systems and networked products, including connected vehicles, owned or maintained by us, GM Financial, or third-party vendors or suppliers on our behalf, could interfere with our operations and could compromise the confidentiality of private customer data or our proprietary information. We rely upon information technology systems and manufacture networked products, some of which are managed by third parties, to process, transmit and store electronic information, and to manage or support a variety of our business processes, activities and products. Additionally, we and GM Financial collect and store sensitive data, including intellectual property and proprietary business information (including that of our dealers and suppliers), as well as personally identifiable information of our customers and employees, in data centers and on information technology networks (including networks that may be controlled or maintained by third parties). The secure operation of these systems and products, and the processing and maintenance of the information processed by these systems and products, is critical to our business operations and strategy. Further, customers using our systems rely on the security of our infrastructure, including hardware and other elements provided by third parties, to ensure the reliability of our products and the protection of their data. Despite security measures and business continuity plans, these systems and products may be vulnerable to damage, disruptions or shutdowns caused by attacks by hackers, computer viruses, malware (including "ransomware"), phishing attacks or breaches due to errors or malfeasance by employees, contractors and others who have access to these systems and products. The occurrence of any of these events could compromise the confidentiality, operational integrity and accessibility of these systems and products and the data that resides within them. Similarly, such an occurrence could result in the compromise or loss of the information processed by these systems and products. Such events could result in, among other things, the loss of proprietary data, interruptions or delays in our business operations and damage to our reputation. In addition, such events could increase the risk of claims alleging that we are non-

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compliant with applicable laws or regulations, subjecting us to potential liability or regulatory penalties and related costs under laws protecting the privacy of personal information; disrupt our operations; or reduce the competitive advantage we hope to derive from our investment in advanced technologies. We have experienced such events in the past and, although past events were immaterial, future events may occur and may be material.

Security breaches and other disruptions of our in-vehicle systems could impact the safety of our customers and reduce confidence in GM and our products. Our vehicles contain complex information technology systems. These systems control various vehicle functions including engine, transmission, safety, steering, navigation, acceleration, braking, window and door lock functions. We have designed, implemented and tested security measures intended to prevent unauthorized access to these systems. However, hackers have reportedly attempted, and may attempt in the future, to gain unauthorized access to modify, alter and use such systems to gain control of, or to change, our vehicles' functionality, user interface and performance characteristics, or to gain access to data stored in or generated by the vehicle. Any unauthorized access to or control of our vehicles or their systems could adversely impact the safety of our customers or result in legal claims or proceedings, liability or regulatory penalties. New laws, such as the new data law in Massachusetts that would permit third-party access to vehicle data and related systems, could expose our vehicles and vehicle systems to third-party access without appropriate security measures in place, leading to new safety and security risks for our customers and reducing customer trust and confidence in our products. In addition, regardless of their veracity, reports of unauthorized access to our vehicles or their systems could negatively affect our brand and harm our reputation, which could impact our business and operating results.

Our enterprise data practices, including the collection, use, sharing, and security of the Personal Identifiable Information of our customers, employees and suppliers, are subject to increasingly complex, restrictive and punitive regulations in all key market regions. Under these regulations, the failure to maintain compliant data practices could result in consumer complaints and regulatory inquiry, resulting in civil or criminal penalties, as well as brand impact or other harm to our business. In addition, increased consumer sensitivity to real or perceived failures in maintaining acceptable data practices could damage our reputation and deter current and potential users or customers from using our products and services. Because many of these laws are new, there is little clarity as to their interpretation, as well as a lack of precedent for the scope of enforcement. The cost of compliance with these laws and regulations will be high and is likely to increase in the future. For example, the California Consumer Protection Act became effective in 2020, obligating companies to quickly respond to consumer requests to delete, disclose and stop selling personal information of California residents, with significant fines for noncompliance. Other U.S. states are considering similar laws, with some considering private rights of action for consumers that would allow consumers to bring claims directly against GM for mishandling their data. In Europe in 2020, the Court of Justice for the EU invalidated mechanisms for transferring personal information out of the EU, leading to a wave of potential new barriers for data sharing between the EU and, among other countries, the U.S. In Canada, both the federal government and certain provinces have also proposed new legislation imposing significant and unprecedented obligations, fines and liabilities regarding data handling. Overcoming these new barriers is likely to increase our costs and drive new complexity in our operations.

Risks related to government regulations and litigation

Our operations and products are subject to extensive laws, regulations and policies, including those related to vehicle emissions, fuel economy standards and greenhouse gas emissions, that can significantly increase our costs and affect how we do business. We are significantly affected by governmental regulations on a global basis that can increase costs related to the production of our vehicles and affect our product portfolio, particularly regulations relating to emissions, fuel economy standards and greenhouse gas emissions. Meeting or exceeding many of these regulations is costly and often technologically challenging, especially because the standards are not harmonized across jurisdictions. We anticipate that the number and extent of these and other regulations, laws and policies, and the related costs and changes to our product portfolio, may increase significantly in the future, primarily out of concern for the environment (including concerns about global climate change and its impact). These government regulatory requirements, among others, could significantly affect our plans for global product development and, given the uncertainty surrounding enforcement and regulatory definitions and interpretations, may result in substantial costs, including civil or criminal penalties. In addition, an evolving but un-harmonized emissions and fuel economy regulatory framework may limit or dictate the types of vehicles we sell and where we sell them, which can affect our revenues. Refer to the "Environmental and Regulatory Matters" section of Item 1. Business for further information on regulatory and environmental requirements.

We expect that to comply with fuel economy and emission control requirements, we will be required to sell a significant volume of electric vehicles, and potentially develop and implement new technologies for conventional internal combustion engines, all at increased costs. There are limits on our ability to achieve fuel economy improvements over a given time frame, primarily relating to the cost and effectiveness of available technologies, lack of sufficient consumer acceptance of new technologies and of changes in vehicle mix, lack of willingness of consumers to absorb the additional costs of new technologies, the appropriateness (or lack thereof) of certain technologies for use in particular vehicles, the widespread availability (or lack thereof) of supporting infrastructure for new technologies and the human, engineering and financial resources necessary to deploy new technologies across a wide range of products and powertrains in a short time. There is no

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assurance that we will be able to produce and sell vehicles that use such new technologies on a profitable basis or that our customers will purchase such vehicles in the quantities necessary for us to comply with these regulatory programs.

In the current uncertain regulatory framework, environmental liabilities for which we may be responsible and that are not reasonably estimable could be substantial. Alleged violations of safety, fuel economy or emissions standards could result in legal proceedings, the recall of one or more of our products, negotiated remedial actions, fines, restricted product offerings or a combination of any of those items. Any of these actions could have a material adverse effect on our operations, including facility idling, reduced employment, increased costs and loss of revenue.

In addition, many of our advanced technologies, including autonomous vehicles, present novel issues with which domestic and foreign regulators have only limited experience, and will be subject to evolving regulatory frameworks. Any current or future regulations in these areas could impact whether and how these technologies are designed and integrated into our products, and may ultimately subject us to increased costs and uncertainty.

We could be materially adversely affected by unusual or significant litigation, governmental investigations or other proceedings. We are subject to legal proceedings involving various issues, including product liability lawsuits, class action litigations alleging product defects, emissions litigation (both in the U.S. and elsewhere), stockholder litigation, labor and employment litigation in various countries (including U.S., Canada, Korea and Brazil), claims and actions arising from restructurings, divestitures of operations and assets and proceedings related to the Ignition Switch Recall. In addition, we are subject to governmental proceedings and investigations. A negative outcome in one or more of these legal proceedings could result in the imposition of damages, including punitive damages, substantial fines, significant reputational harm, civil lawsuits and criminal penalties, interruptions of business, modification of business practices, equitable remedies and other sanctions against us or our personnel as well as significant legal and other costs. For a further discussion of these matters refer to Note 16 to our consolidated financial statements.

The costs and effect on our reputation of product safety recalls and alleged defects in products and services could materially adversely affect our business. Government safety standards require manufacturers to remedy certain product safety defects through recall campaigns and vehicle repurchases. Under these standards, we could be subject to civil or criminal penalties or may incur various costs, including significant costs for repairs made at no cost to the consumer. At present, the costs we incur in connection with these recalls typically include the cost of the part being replaced and labor to remove and replace the defective part. The costs to complete a recall could be exacerbated to the extent that such action relates to a global platform. Concerns about the safety of our products, including advanced technologies like autonomous vehicles, whether raised internally or by regulators or consumer advocates, and whether or not based on scientific evidence or supported by data, can result in product delays, recalls, lost sales, governmental investigations, regulatory action, private claims, lawsuits and settlements and reputational damage. These circumstances can also result in damage to brand image, brand equity and consumer trust in our products and ability to lead the disruption occurring in the automotive industry.

We currently source a variety of systems, components, raw materials and parts from third parties. From time to time these items may have performance or quality issues that could harm our reputation and cause us to incur significant costs, particularly if the affected items relate to global platforms or involve defects that are identified years after production. Our ability to recover costs associated with recalls or other campaigns caused by parts or components purchased from suppliers may be limited by the suppliers' financial condition or a number of other reasons or defenses.

We may incur additional tax expense or become subject to additional tax exposure. We are subject to the tax laws and regulations of the U.S. and numerous other jurisdictions in which we do business. Many judgments are required in determining our worldwide provision for income taxes and other tax liabilities, and we are regularly under audit by the U.S. Internal Revenue Service and other tax authorities, which may not agree with our tax positions. In addition, our tax liabilities are subject to other significant risks and uncertainties, including those arising from potential changes in laws and regulations in the countries in which we do business, the possibility of adverse determinations with respect to the application of existing laws, changes in our business or structure and changes in the valuation of our deferred tax assets and liabilities. Any unfavorable resolution of these and other uncertainties may have a significant adverse impact on our tax rate and results of operations. If our tax expense were to increase, or if the ultimate determination of our taxes owed is for an amount in excess of amounts previously accrued, our operating results, cash flows and financial condition could be adversely affected.

Risks related to Automotive Financing - GM Financial

We rely on GM Financial to provide financial services to our customers and dealers globally. GM Financial faces a number of business, economic and financial risks that could impair its access to capital and negatively affect its business and operations, which in turn could impede its ability to provide leasing and financing to customers and commercial lending to our dealers. Any reduction in GM Financial's ability to provide such financial services would negatively affect our efforts to support additional sales of our vehicles and expand our market penetration among customers and dealers.

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The primary factors that could adversely affect GM Financial's business and operations and reduce its ability to provide financing services at competitive rates include the sufficiency, availability and cost of sources of financing, including credit facilities, securitization programs and secured and unsecured debt issuances; the performance of loans and leases in its portfolio, which could be materially affected by charge-offs, delinquencies and prepayments; wholesale auction values of used vehicles; vehicle return rates and the residual value performance on vehicles GM Financial leases to customers; fluctuations in interest rates and currencies; competition for customers from commercial banks, credit unions and other financing and leasing companies; and changes to regulation, supervision, enforcement and licensing across various jurisdictions.

In addition, a substantial portion of GM Financial's indebtedness bears interest at variable interest rates, primarily based on USD-LIBOR. The U.K. Financial Conduct Authority, which regulates LIBOR, has announced that it will no longer persuade or compel banks to submit rates for the calculation of LIBOR after 2021. It is unknown whether any banks will continue to voluntarily submit rates for the calculation of LIBOR, or whether LIBOR will continue to be published by its administrator based on these submissions or on any other basis, after 2021. At this time, it is not possible to predict the effect that these developments or any discontinuance, modification or other reforms may have on LIBOR, other benchmarks or floating-rate debt instruments, including GM Financial's floating-rate debt. Any such discontinuance, modification, alternative reference rates or other reforms may materially adversely affect interest rates on GM Financial's current or future indebtedness. There is a risk that the discontinuation of LIBOR will impact GM Financial's ability to manage interest rate risk effectively without an adequate replacement.

Further, as an entity operating in the financial services sector, GM Financial is required to comply with a wide variety of laws and regulations that may be costly to adhere to and may affect our consolidated operating results. Compliance with these laws and regulations requires that GM Financial maintain forms, processes, procedures, controls and the infrastructure to support these requirements, and these laws and regulations often create operational constraints both on GM Financial's ability to implement servicing procedures and on pricing. Laws in the financial services industry are designed primarily for the protection of consumers. The failure to comply with these laws could result in significant statutory civil and criminal penalties, monetary damages, attorneys' fees and costs, possible revocation of licenses and damage to reputation, brand and valued customer relationships.

Risks related to defined benefit pension plans

Our defined benefit pension plans are currently underfunded and our pension funding requirements could increase significantly due to a reduction in funded status as a result of a variety of factors, including weak performance of financial markets, declining interest rates, changes in laws or regulations, or changes in assumptions or investments that do not achieve adequate returns. Our employee benefit plans currently hold a significant amount of equity and fixed income securities. A detailed description of the investment funds and strategies and our potential funding requirements are disclosed in Note 15 to our consolidated financial statements, which also describes significant concentrations of risk to the plan investments.

Our future funding requirements for our defined benefit pension plans depend upon the future performance of assets placed in trusts for these plans, the level of interest rates used to determine funding levels, the level of benefits provided for by the plans and any changes in laws and regulations. Future funding requirements generally increase if the discount rate decreases or if actual asset returns are lower than expected asset returns, assuming other factors are held constant. We estimate future contributions to these plans using assumptions with respect to these and other items. Changes to those assumptions could have a significant effect on future contributions.

There are additional risks due to the complexity and magnitude of our investments. Examples include implementation of significant changes in investment policy, insufficient market liquidity in particular asset classes and the inability to quickly rebalance illiquid and long-term investments.

Factors that affect future funding requirements for our U.S. defined benefit plans generally affect the required funding for non-U.S. plans. Certain plans outside the U.S. do not have assets and therefore the obligation is funded as benefits are paid. If local legal authorities increase the minimum funding requirements for our non-U.S. plans, we could be required to contribute more funds, which could negatively affect our liquidity and financial condition.

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Item 1B. Unresolved Staff Comments

None.

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Item 2. Properties

At December 31, 2020, we had over 100 locations in the U.S. (excluding our automotive financing operations and dealerships), which are primarily for manufacturing, assembly, distribution, warehousing, engineering and testing. We, our subsidiaries or associated companies in which we own an equity interest own most of these properties and/or lease a portion of these properties. Leased properties are primarily composed of warehouses and administration, engineering and sales offices.

We have manufacturing, assembly, distribution, office or warehousing operations in 29 countries, including equity interests in associated companies, which perform manufacturing, assembly or distribution operations. The major facilities outside the U.S., which are principally vehicle manufacturing and assembly operations, are located in Argentina, Brazil, Canada, China, Colombia, Mexico and South Korea.

GM Financial owns or leases facilities for administration and regional credit centers. GM Financial has 37 facilities, of which 24 are located in the U.S. The major facilities outside the U.S. are located in Brazil, Canada, China and Mexico.

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Item 3. Legal Proceedings

The discussion under "Litigation-Related Liability and Tax Administrative Matters" in Note 16 to our consolidated financial statements is incorporated by reference into this Part I - Item 3.

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Item 4. Mine Safety Disclosures

Not applicable.

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PART II

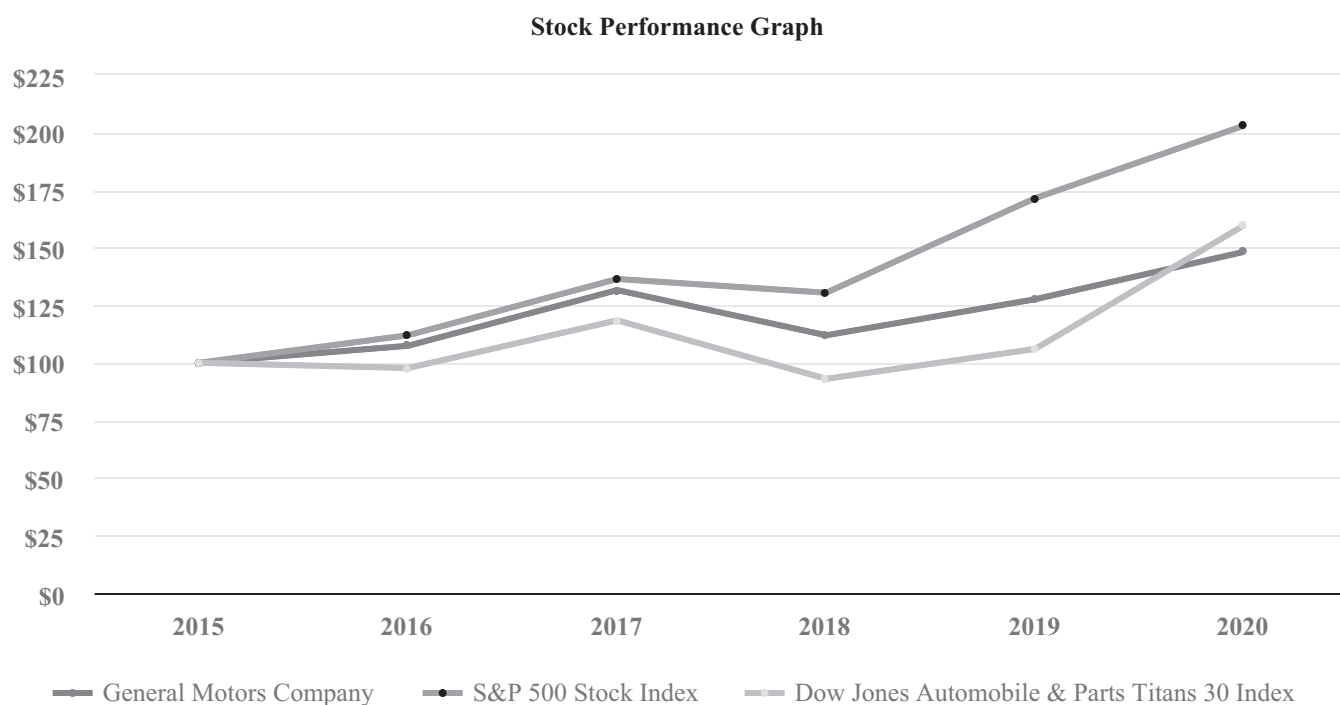
Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Market Information Shares of our common stock are publicly traded on the New York Stock Exchange under the symbol "GM".

Holders At January 29, 2021, we had 1.4 billion issued and outstanding shares of common stock held by 471 holders of record.

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Stock Performance Graph The following graph compares the performance of our common stock to the Standard & Poor's 500 Stock Index and the Dow Jones Automobile & Parts Titans 30 Index for the last five years. It assumes \$100 was invested on December 31, 2015, with dividends being reinvested.



The following table summarizes stock performance graph data points in dollars:

	Years ended December 31,					
	2015	2016	2017	2018	2019	2020
General Motors Company	\$100	\$107	\$132	\$112	\$128	\$148
S&P 500 Stock Index	\$100	\$112	\$136	\$130	\$171	\$203
Dow Jones Automobile & Parts Titans 30 Index	\$100	\$98	\$118	\$93	\$106	\$160

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Purchases of Equity Securities The following table summarizes our purchases of common stock in the three months ended December 31, 2020:

	Total Number of Shares Purchased(a)	Weighted Average Price Paid per Share	Total Number of Shares Purchased Under Announced Programs(b)	Approximate Dollar Value of Shares That May Yet be Purchased Under Announced Programs
October 1, 2020 through October 31, 2020	38,520	\$ 30.97	—	\$3.3 billion
November 1, 2020 through November 30, 2020	26,509	\$ 45.06	—	\$3.3 billion
December 1, 2020 through December 31, 2020	29,198	\$ 41.62	—	\$3.3 billion
Total	<u>94,227</u>	<u>\$ 38.23</u>	<u>—</u>	

- (a) Shares purchased consist of shares delivered by employees or directors to us for the payment of taxes resulting from issuance of common stock upon the vesting of Restricted Stock Units (RSUs) and Performance Stock Units (PSUs) relating to compensation plans. In June 2017 our shareholders approved the 2017 Long Term Incentive Plan, which authorizes awards of stock options, stock appreciation rights, RSUs, PSUs or other stock-based awards to selected employees, consultants, advisors, and non-employee Directors of the Company. Refer to Note 23 to our consolidated financial statements for additional details on employee stock incentive plans.
- (b) In January 2017, we announced that our Board of Directors had authorized the purchase of up to an additional \$5.0 billion of our common stock with no expiration date.

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Item 6. Selected Financial Data

Not applicable.

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

This MD&A should be read in conjunction with the accompanying audited consolidated financial statements and notes. Forward-looking statements in this MD&A are not guarantees of future performance and may involve risks and uncertainties that could cause actual results to differ materially from those projected. Refer to the "Forward-Looking Statements" section of this MD&A and Part I, Item 1A. Risk Factors for a discussion of these risks and uncertainties. The discussion of our financial condition and results of operations for the year ended December 31, 2018 included in Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations in our [Annual Report on Form 10-K for the year ended December 31, 2019](#) is incorporated by reference into this MD&A.

Non-GAAP Measures Unless otherwise indicated, our non-GAAP measures discussed in this MD&A are related to our continuing operations and not our discontinued operations. Our non-GAAP measures include: earnings before interest and taxes (EBIT)-adjusted, presented net of noncontrolling interests; earnings before income taxes (EBT)-adjusted for our GM Financial segment; earnings per share (EPS)-diluted-adjusted; effective tax rate-adjusted (ETR-adjusted); return on invested capital-adjusted (ROIC-adjusted) and adjusted automotive free cash flow. Our calculation of these non-GAAP measures may not be comparable to similarly titled measures of other companies due to potential differences between companies in the method of calculation. As a result, the use of these non-GAAP measures has limitations and should not be considered superior to, in isolation from, or as a substitute for, related U.S. GAAP measures.

These non-GAAP measures allow management and investors to view operating trends, perform analytical comparisons and benchmark performance between periods and among geographic regions to understand operating performance without regard to items we do not consider a component of our core operating performance. Furthermore, these non-GAAP measures allow investors the opportunity to measure and monitor our performance against our externally communicated targets and evaluate the investment decisions being made by management to improve ROIC-adjusted. Management uses these measures in its financial, investment and operational decision-making processes, for internal reporting and as part of its forecasting and budgeting processes. Further, our Board of Directors uses certain of these and other measures as key metrics to determine management performance under our performance-based compensation plans. For these reasons we believe these non-GAAP measures are useful for our investors.

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EBIT-adjusted EBIT-adjusted is presented net of noncontrolling interests and is used by management and can be used by investors to review our consolidated operating results because it excludes automotive interest income, automotive interest expense and income taxes as well as certain additional adjustments that are not considered part of our core operations. Examples of adjustments to EBIT include but are not limited to impairment charges on long-lived assets and other exit costs resulting from strategic shifts in our operations or discrete market and business conditions; costs arising from the ignition switch recall and related legal matters; and certain currency devaluations associated with hyperinflationary economies. For EBIT-adjusted and our other non-GAAP measures, once we have made an adjustment in the current period for an item, we will also adjust the related non-GAAP measure in any future periods in which there is an impact from the item. Our corresponding measure for our GM Financial segment is EBT-adjusted because interest income and interest expense are part of operating results when assessing and measuring the operational and financial performance of the segment.

EPS-diluted-adjusted EPS-diluted-adjusted is used by management and can be used by investors to review our consolidated diluted EPS results on a consistent basis. EPS-diluted-adjusted is calculated as net income attributable to common stockholders-diluted less income (loss) from discontinued operations on an after-tax basis, adjustments noted above for EBIT-adjusted and certain income tax adjustments divided by weighted-average common shares outstanding-diluted. Examples of income tax adjustments include the establishment or reversal of significant deferred tax asset valuation allowances.

ETR-adjusted ETR-adjusted is used by management and can be used by investors to review the consolidated effective tax rate for our core operations on a consistent basis. ETR-adjusted is calculated as Income tax expense less the income tax related to the adjustments noted above for EBIT-adjusted and the income tax adjustments noted above for EPS-diluted-adjusted divided by Income before income taxes less adjustments. When we provide an expected adjusted effective tax rate, we do not provide an expected effective tax rate because the U.S. GAAP measure may include significant adjustments that are difficult to predict.

ROIC-adjusted ROIC-adjusted is used by management and can be used by investors to review our investment and capital allocation decisions. We define ROIC-adjusted as EBIT-adjusted for the trailing four quarters divided by ROIC-adjusted average net assets, which is considered to be the average equity balances adjusted for average automotive debt and interest liabilities, exclusive of finance leases; average automotive net pension and other postretirement benefits (OPEB) liabilities; and average automotive net income tax assets during the same period.

Adjusted automotive free cash flow Adjusted automotive free cash flow is used by management and can be used by investors to review the liquidity of our automotive operations and to measure and monitor our performance against our capital allocation program and evaluate our automotive liquidity against the substantial cash requirements of our automotive operations. We measure adjusted automotive free cash flow as automotive operating cash flow from continuing operations less capital expenditures adjusted for management actions. Management actions can include voluntary events such as discretionary contributions to employee benefit plans or nonrecurring specific events such as a closure of a facility that are considered special for EBIT-adjusted purposes. Refer to the “Liquidity and Capital Resources” section of this MD&A for additional information.

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The following table reconciles Net income attributable to stockholders under U.S. GAAP to EBIT-adjusted:

	Years Ended December 31,		
	2020	2019	2018
Net income attributable to stockholders	\$ 6,427	\$ 6,732	\$ 8,014
Loss from discontinued operations, net of tax	—	—	70
Income tax expense	1,774	769	474
Automotive interest expense	1,098	782	655
Automotive interest income	(241)	(429)	(335)
Adjustments			
GMI restructuring(a)	683	—	1,138
Ignition switch recall and related legal matters(b)	(130)	—	440
Cadillac dealer strategy(c)	99	—	—
Transformation activities(d)	—	1,735	1,327
GM Brazil indirect tax recoveries(e)	—	(1,360)	—
FAW-GM divestiture(f)	—	164	—
Total adjustments	652	539	2,905
EBIT-adjusted	<u>\$ 9,710</u>	<u>\$ 8,393</u>	<u>\$ 11,783</u>

- (a) These adjustments were excluded because of a strategic decision to rationalize our core operations by exiting or significantly reducing our presence in various international markets to focus resources on opportunities expected to deliver higher returns. The adjustments primarily consist of dealer restructurings, asset impairments, inventory provisions and employee separation charges in Australia, New Zealand, Thailand and India in the year ended December 31, 2020 and employee separation charges, asset impairments and supplier claims in Korea in the year ended December 31, 2018.
- (b) These adjustments were excluded because of the unique events associated with the ignition switch recall, which included various investigations, inquiries and complaints from constituents.
- (c) This adjustment was excluded because it relates to strategic activities to transition certain Cadillac dealers from the network as part of Cadillac's electric vehicle strategy.
- (d) These adjustments were excluded because of a strategic decision to accelerate our transformation for the future to strengthen our core business, capitalize on the future of personal mobility, and drive significant cost efficiencies. The adjustments primarily consist of accelerated depreciation, supplier-related charges, pension and other curtailment charges and employee-related separation charges in the year ended December 31, 2019 and primarily employee separation charges and accelerated depreciation in the year ended December 31, 2018.
- (e) This adjustment was excluded because of the unique events associated with decisions rendered by the Superior Judicial Court of Brazil resulting in retrospective recoveries of indirect taxes.
- (f) This adjustment was excluded because we divested our joint venture FAW-GM Light Duty Commercial Vehicle Co., Ltd. (FAW-GM), as a result of a strategic decision by both shareholders, allowing us to focus our resources on opportunities expected to deliver higher returns.

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The following table reconciles diluted earnings per common share under U.S. GAAP to EPS-diluted-adjusted:

	Years Ended December 31,					
	2020		2019		2018	
	Amount	Per Share	Amount	Per Share	Amount	Per Share
Diluted earnings per common share	\$ 6,247	\$ 4.33	\$ 6,581	\$ 4.57	\$ 7,916	\$ 5.53
Diluted loss per common share – discontinued operations	—	—	—	—	70	0.05
Adjustments(a)	652	0.46	539	0.38	2,905	2.03
Tax effect on adjustments(b)	(70)	(0.05)	(188)	(0.13)	(416)	(0.29)
Tax adjustments(c)	236	0.16	—	—	(1,111)	(0.78)
EPS-diluted-adjusted	<u>\$ 7,065</u>	<u>\$ 4.90</u>	<u>\$ 6,932</u>	<u>\$ 4.82</u>	<u>\$ 9,364</u>	<u>\$ 6.54</u>

- (a) Refer to the reconciliation of Net income attributable to stockholders under U.S. GAAP to EBIT-adjusted within this section of the MD&A for adjustment details.
- (b) The tax effect of each adjustment is determined based on the tax laws and valuation allowance status of the jurisdiction to which the adjustment relates.
- (c) In the year ended December 31, 2020, the adjustment consists of tax expense related to the establishment of a valuation allowance against deferred tax assets in Australia and New Zealand. This adjustment was excluded because significant impacts of valuation allowances are not considered part of our core operations. In the year ended December 31, 2018, the adjustment consists of: (1) a non-recurring tax benefit related to foreign earnings; and (2) tax effects related to U.S. tax reform legislation.

The following table reconciles our effective tax rate under U.S. GAAP to ETR-adjusted:

	Years Ended December 31,								
	2020			2019			2018		
	Income before income taxes	Income tax expense	Effective tax rate	Income before income taxes	Income tax expense	Effective tax rate	Income before income taxes	Income tax expense	Effective tax rate
Effective tax rate	\$ 8,095	\$ 1,774	21.9 %	\$ 7,436	\$ 769	10.3 %	\$ 8,549	\$ 474	5.5 %
Adjustments(a)	652	70		545	188		2,946	416	
Tax adjustments(b)		(236)			—			1,111	
ETR-adjusted	<u>\$ 8,747</u>	<u>\$ 1,608</u>	18.4 %	<u>\$ 7,981</u>	<u>\$ 957</u>	12.0 %	<u>\$ 11,495</u>	<u>\$ 2,001</u>	17.4 %

- (a) Refer to the reconciliation of Net income attributable to stockholders under U.S. GAAP to EBIT-adjusted within this section of the MD&A for adjustment details. Net income attributable to noncontrolling interests for these adjustments is included in the years ended December 31, 2019 and 2018. The tax effect of each adjustment is determined based on the tax laws and valuation allowance status of the jurisdiction to which the adjustment relates.
- (b) Refer to the reconciliation of diluted earnings per common share under U.S. GAAP to EPS-diluted-adjusted within this section of the MD&A for adjustment details.

We define return on equity (ROE) as Net income (loss) attributable to stockholders for the trailing four quarters divided by average equity for the same period. Management uses average equity to provide comparable amounts in the calculation of ROE. The following table summarizes the calculation of ROE (dollars in billions):

	Years Ended December 31,		
	2020	2019	2018
Net income (loss) attributable to stockholders	\$ 6.4	\$ 6.7	\$ 8.0
Average equity(a)	\$ 43.3	\$ 43.7	\$ 37.4
ROE	14.9 %	15.4 %	21.4 %

- (a) Includes equity of noncontrolling interests where the corresponding earnings (loss) are included in Net income (loss) attributable to stockholders.

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The following table summarizes the calculation of ROIC-adjusted (dollars in billions):

	Years Ended December 31,		
	2020	2019	2018
EBIT-adjusted(a)	\$ 9.7	\$ 8.4	\$ 11.8
Average equity(b)	\$ 43.3	\$ 43.7	\$ 37.4
Add: Average automotive debt and interest liabilities (excluding finance leases)	27.8	14.9	14.4
Add: Average automotive net pension & OPEB liability	17.6	16.7	18.3
Less: Average automotive net income tax asset	(24.0)	(23.5)	(22.7)
ROIC-adjusted average net assets	<u>\$ 64.7</u>	<u>\$ 51.8</u>	<u>\$ 47.4</u>
ROIC-adjusted	15.0 %	16.2 %	24.9 %

(a) Refer to the reconciliation of Net income attributable to stockholders under U.S. GAAP to EBIT-adjusted within this section of the MD&A.

(b) Includes equity of noncontrolling interests where the corresponding earnings (loss) are included in EBIT-adjusted.

Overview Our vision for the future is a world with zero crashes, zero emissions and zero congestion, which guides our growth-focused investment in electrification, self-driving vehicles and new products and services. The all-electric future we are building integrates our technology, scale and manufacturing expertise to drive growth, profitability and deliver world-class customer interactions. Our strategy includes product leadership in electric vehicles and autonomous vehicles, continued leadership in trucks and SUVs, and developing and monetizing new software and services. We will execute our strategy with a diverse team and a steadfast commitment to good citizenship through sustainable operations and a leading health and safety culture.

The COVID-19 pandemic and government actions and measures taken to prevent its spread continue to affect our operations. In response to COVID-19, we previously suspended the majority of our global manufacturing operations and our Automotive China JVs' manufacturing operations. By May 2020, we had resumed our global manufacturing operations. Government-imposed restrictions on businesses, operations and travel and the related economic uncertainty have impacted demand for our vehicles in most of our global markets. During the first half of 2020, we executed a number of austerity measures, including aggressive actions to reduce costs and preserve liquidity, such as limiting advertising and other third-party spending, suspending our dividend on common shares, deferring salaried employee compensation and delaying non-critical projects, including certain future product programs. As production has returned to normal levels, the majority of the austerity measures we put into place have normalized. The extent of COVID-19's impact on our future operations, liquidity and the demand for our products will depend upon, among other things, the duration and severity of the outbreak or subsequent outbreaks, related government responses, such as required physical distancing or restrictions on business operations and travel, the pace of recovery of economic activity and the impact to consumers, the effectiveness of available vaccines and any potential supply disruptions, all of which are uncertain and difficult to predict in light of the rapidly evolving landscape. Refer to Part I, Item 1A. Risk Factors for a full discussion of the risks associated with the COVID-19 pandemic.

The automotive industry and GM are currently experiencing a global semiconductor supply shortage. The supply shortage has impacted multiple suppliers that incorporate semiconductors into the parts they supply to us. We expect the semiconductor supply shortage will have a short-term impact on our business. We do not expect this shortage to impact our growth and electric vehicle initiatives, we will continue prioritizing full-size trucks, SUVs and electric vehicles. Refer to Part I, Item 1A. Risk Factors for further discussion of these risks.

For the year ending December 31, 2021, we expect EPS-diluted and EPS-diluted-adjusted of between \$4.50 and \$5.25, Net income attributable to stockholders of between \$6.8 billion and \$7.6 billion and EBIT-adjusted of between \$10.0 billion and \$11.0 billion, inclusive of the impact of the semiconductor supply shortage. We do not consider the potential future impact of adjustments on our expected financial results. We estimate the short-term semiconductor supply shortage to have a net EBIT-adjusted impact of approximately \$1.5 billion to \$2.0 billion in the year ending December 31, 2021.

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The following table reconciles expected Net income attributable to stockholders under U.S. GAAP to expected EBIT-adjusted (dollars in billions):

	Year Ending December 31, 2021
Net income attributable to stockholders	\$ 6.8-7.6
Income tax expense	2.2-2.4
Automotive interest expense, net	1.0
EBIT-adjusted(a)	\$ 10.0-11.0

(a) We do not consider the potential future impact of adjustments on our expected financial results.

We also face continuing market, operating and regulatory challenges in several countries across the globe due to, among other factors, weak economic conditions, competitive pressures, our product portfolio offerings, heightened emissions standards, labor disruptions, foreign exchange volatility, rising material prices, evolving trade policy and political uncertainty. Refer to Part I, Item 1A. Risk Factors for a discussion of these challenges.

In November 2018, we announced plans to accelerate steps to improve our overall business performance, including the reorganization of global product development staffs, the realignment of manufacturing capacity in response to market-related volume declines in passenger cars and a reduction of our salaried workforce. We achieved \$4.5 billion in cost savings primarily from reductions in Automotive and other cost of sales and Automotive and other selling, general and administrative expense in our consolidated financial statements, inclusive of \$0.2 billion of savings related to the wind-down of Holden sales, design and engineering operations and sale of our vehicle and powertrain manufacturing facilities in Thailand. We previously announced plans to reduce capital expenditures from approximately \$8.5 billion to approximately \$7.0 billion on a normalized run-rate basis. As a result of re-timing 2020 spending due to pandemic-related austerity measures into 2021 and a strategic decision to accelerate investments in our all-electric future beginning in 2021, we expect that our annual capital expenditures will exceed \$7.0 billion through at least 2023. As we continue to assess our performance and the needs of our evolving business, additional restructuring and rationalization actions could be required. These actions could give rise to future asset impairments or other charges, which may have a material impact on our operating results.

GMNA Industry sales in North America were 17.7 million units in the year ended December 31, 2020, representing a decrease of 16.2% compared to the corresponding period in 2019. U.S. industry sales were 14.9 million units in the year ended December 31, 2020, representing a decrease of 14.7% compared to the corresponding period in 2019. As described above, the COVID-19 pandemic has resulted in a contraction of total North America industry volumes in 2020. Dealer inventory remains constrained for several critical vehicles, including our full-size trucks.

Our total vehicle sales in the U.S., our largest market in North America, were 2.5 million units for a market share of 17.1% in the year ended December 31, 2020, representing an increase of 0.6 percentage points compared to the corresponding period in 2019. We continue to lead the U.S. industry in market share.

As discussed above, in response to COVID-19, we suspended production across our manufacturing facilities in March 2020. By May 2020, we had resumed critical manufacturing operations and reached normalized production levels in June 2020. We continue to follow physical distancing guidance, enhanced deep cleaning procedures and provide personal protective equipment to protect our employees.

We estimate GMNA's breakeven point at the U.S. industry level to be in the range of 10.0 to 11.0 million units. The extent of COVID-19's impact on industry volumes in 2021 will ultimately depend upon, among other things, the duration and severity of the outbreak or subsequent outbreaks, related government responses, the pace of recovery of economic activity and the impact to consumers, the effectiveness of available vaccines and any potential supply disruptions, all of which are uncertain and difficult to predict in light of the rapidly evolving landscape.

GMI Industry sales in China were 24.9 million units in the year ended December 31, 2020, representing a decrease of 1.9% compared to the corresponding period in 2019. Our total vehicle sales in China were 2.9 million units for a market share of 11.6% in the year ended December 31, 2020, representing a decrease of 0.5 percentage points compared to the corresponding period in 2019. While we have observed a recovery of the market as the impact of the COVID-19 pandemic in China subsides, the ongoing global macro-economic impact of COVID-19 and geopolitical tensions may continue to place pressure on China's

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automotive industry. Our Automotive China JVs generated equity income of \$0.5 billion in the year ended December 31, 2020. Although a continuation of a competitive industry, pricing pressures and a more challenging regulatory environment related to emissions, fuel consumption and new energy vehicles will continue to place pressure on our operations in China, we will continue to build upon our strong brands, network, and partnerships in China as well as continue to drive improvements in vehicle mix and cost.

Outside of China, industry sales were 21.1 million units in the year ended December 31, 2020, representing a decrease of 18.0% compared to the corresponding period in 2019, primarily due to the global macroeconomic impact of COVID-19. Our total vehicle sales were 1.0 million units for a market share of 4.7% in the year ended December 31, 2020, representing a decrease of 0.1 percentage points compared to the corresponding period in 2019.

In the year ended December 31, 2020, restructuring actions in GMI were related to the wind-down of Holden sales, design and engineering operations in Australia and New Zealand, with cessation of Holden vehicle sales by 2021, the sale of our vehicle and powertrain manufacturing facilities in Thailand, and the execution of a binding term sheet to sell our manufacturing facilities in India. These actions were taken to strengthen the Company's core business and focus investment on other opportunities that will derive the greatest returns for shareholders and support investment in future technologies. We recorded charges of \$0.7 billion in the year ended December 31, 2020. We also recorded deferred tax charges of \$0.2 billion in the year ended December 31, 2020. The charges were primarily considered special for EBIT-adjusted, EPS-diluted-adjusted and adjusted automotive free cash flow purposes. We intend to continue to provide servicing and spare parts to customers for an extended period of time in Australia, New Zealand, Thailand and India. Refer to Note 18 to our consolidated financial statements for additional information related to these restructuring actions.

Cruise We are actively testing our autonomous vehicles in the U.S. Gated by safety and regulation, we continue to make significant progress towards commercialization of a network of on-demand autonomous vehicles in the U.S.

Automotive Financing - GM Financial Summary and Outlook We believe that offering a comprehensive suite of financing products will generate incremental sales of our vehicles, drive incremental GM Financial earnings and help support our sales throughout various economic cycles. GM Financial's leasing program is exposed to residual values, which are heavily dependent on used vehicle prices. Used vehicle prices increased approximately 3% in 2020 compared to 2019, primarily due to low new vehicle inventory, largely driven by the suspension of manufacturing operations as a result of the COVID-19 pandemic, creating strong demand for used vehicles, which resulted in gains on terminations of leased vehicles of \$1.3 billion in GM Financial interest, operating and other expenses in the year ended December 31, 2020, compared to gains of \$0.7 billion in the corresponding period in 2019. Further, vehicles sold during 2020 were carried at lower net book values, resulting from increased depreciation rates recorded in anticipation of reduced residual values throughout 2020. In 2021, GM Financial expects used vehicle prices to decline by an amount in the low single digits on a percentage basis as compared to 2020 levels as supply and demand dynamics normalize. The following table summarizes the estimated residual value based on GM Financial's most recent estimates and the number of units included in GM Financial Equipment on operating leases, net by vehicle type (units in thousands):

	December 31, 2020			December 31, 2019		
	Residual Value	Units	Percentage	Residual Value	Units	Percentage
Crossovers	\$ 16,334	964	65.5 %	\$ 15,950	972	60.5 %
Trucks	7,455	275	18.7 %	7,256	288	18.0 %
SUVs	3,435	92	6.3 %	3,917	108	6.7 %
Cars	1,949	140	9.5 %	3,276	238	14.8 %
Total	\$ 29,173	1,471	100.0 %	\$ 30,399	1,606	100.0 %

GM Financial's penetration of our retail sales in the U.S. increased to 45% in the year ended December 31, 2020 from 43% in 2019. Penetration levels vary depending on incentive financing programs available and competing third-party financing products in the market. GM Financial's prime loan originations as a percentage of total loan originations in North America increased to 73% in 2020 from 68% in 2019. In the year ended December 31, 2020, GM Financial's revenue consisted of leased vehicle income of 69%, retail finance charge income of 26%, and commercial finance charge income of 3%.

Consolidated Results We review changes in our results of operations under five categories: volume, mix, price, cost and other. Volume measures the impact of changes in wholesale vehicle volumes driven by industry volume, market share and changes in dealer stock levels. Mix measures the impact of changes to the regional portfolio due to product, model, trim,

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country and option penetration in current year wholesale vehicle volumes. Price measures the impact of changes related to Manufacturer's Suggested Retail Price and various sales allowances. Cost primarily includes: (1) material and freight; (2) manufacturing, engineering, advertising, administrative and selling and warranty expense; and (3) non-vehicle related activity. Other primarily includes foreign exchange and non-vehicle related automotive revenues as well as equity income or loss from our nonconsolidated affiliates. Refer to the regional sections of this MD&A for additional information.

Total Net Sales and Revenue

	Years Ended December 31,		Favorable/ (Unfavorable)	%	Variance Due To			
	2020	2019			Volume	Mix	Price	Other
(Dollars in billions)								
GMNA	\$ 96,733	\$ 106,366	\$ (9,633)	(9.1)%	\$ (15.1)	\$ 2.7	\$ 3.3	\$ (0.5)
GMI	11,586	16,111	(4,525)	(28.1)%	\$ (4.4)	\$ 1.2	\$ 0.5	\$ (1.8)
Corporate	350	220	130	59.1 %				\$ 0.1
Automotive	108,669	122,697	(14,028)	(11.4)%	\$ (19.6)	\$ 3.9	\$ 3.8	\$ (2.2)
Cruise	103	100	3	3.0 %				\$ —
GM Financial	13,831	14,554	(723)	(5.0)%				\$ (0.7)
Eliminations/reclassifications	(118)	(114)	(4)	(3.5)%		\$ —		\$ —
Total net sales and revenue	<u>\$ 122,485</u>	<u>\$ 137,237</u>	<u>\$ (14,752)</u>	<u>(10.7)%</u>	\$ (19.6)	\$ 3.9	\$ 3.8	\$ (2.9)

Refer to the regional sections of this MD&A for additional information on volume, mix and price.

Automotive and Other Cost of Sales

	Years Ended December 31,		Favorable/ (Unfavorable)	%	Variance Due To			
	2020	2019			Volume	Mix	Cost	Other
(Dollars in billions)								
GMNA	\$ 83,886	\$ 94,582	\$ 10,696	11.3 %	\$ 11.0	\$ (2.2)	\$ 1.8	\$ —
GMI	12,515	14,967	2,452	16.4 %	\$ 4.0	\$ (0.9)	\$ (1.6)	\$ 1.0
Corporate	310	81	(229)	n.m.			\$ (0.2)	\$ —
Cruise	829	1,026	197	19.2 %			\$ 0.2	
Eliminations	(1)	(5)	(4)	(80.0)%		\$ —	\$ —	
Total automotive and other cost of sales	<u>\$ 97,539</u>	<u>\$ 110,651</u>	<u>\$ 13,112</u>	<u>11.8 %</u>	\$ 15.0	\$ (3.1)	\$ 0.2	\$ 1.0

n.m. = not meaningful

The most significant element of our Automotive and other cost of sales is material cost, which makes up approximately two-thirds of the total amount. The remaining portion includes labor costs, depreciation and amortization, engineering, freight and product warranty and recall campaigns.

Factors that most significantly influence a region's profitability are industry volume, market share, and the relative mix of vehicles (trucks, crossovers, cars) sold. Variable profit is a key indicator of product profitability. Variable profit is defined as revenue less material cost, freight, the variable component of manufacturing expense and warranty and recall-related costs. Vehicles with higher selling prices generally have higher variable profit. Refer to the regional sections of this MD&A for additional information on volume and mix.

In the year ended December 31, 2020, favorable Cost was primarily due to: (1) charges of \$1.7 billion primarily related to accelerated depreciation and supplier-related charges resulting from transformation activities in 2019; (2) favorable cost of \$1.5 billion primarily due to the impact of COVID-19, inclusive of the suspension of production and austerity measures as well as cost savings associated with transformation activities and savings related to the wind-down of Holden sales, design and engineering operations and sale of our vehicle and powertrain manufacturing facilities in Thailand; and (3) decreased costs of \$0.3 billion related to parts and accessories sales; partially offset by (4) a benefit of \$1.4 billion related to the retrospective recoveries of indirect taxes in Brazil in 2019; (5) increased material and freight costs of \$0.9 billion; (6) charges of \$0.7 billion

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primarily related to dealer restructuring charges, property and intangible asset impairments, inventory provisions and employee separation charges in Australia, New Zealand, Thailand and India; and (7) increased costs of \$0.4 billion primarily due to the Takata Corporation (Takata) recall of \$1.1 billion partially offset by decreased other campaign and warranty-related costs. In the year ended December 31, 2020 favorable Other was due to the foreign currency effect resulting from the weakening of the Brazilian Real and other currencies against the U.S. Dollar.

Automotive and Other Selling, General and Administrative Expense

	Years Ended December 31,			Year Ended 2020 vs. 2019 Change	
	2020	2019	2018	Favorable/ (Unfavorable)	%
	Automotive and other selling, general and administrative expense	\$ 7,038	\$ 8,491	\$ 9,650	\$ 1,453

In the year ended December 31, 2020, Automotive and other selling, general and administrative expense decreased primarily due to decreased advertising and other costs of \$1.4 billion primarily related to the impact of COVID-19, inclusive of austerity measures and cost savings associated with transformation activities.

Interest Income and Other Non-operating Income, net

	Years Ended December 31,			Year Ended 2020 vs. 2019 Change	
	2020	2019	2018	Favorable/ (Unfavorable)	%
	Interest income and other non-operating income, net	\$ 1,885	\$ 1,469	\$ 2,596	\$ 416

In the year ended December 31, 2020, Interest income and other non-operating income, net increased primarily due to increased non-service pension income of \$0.3 billion.

Income Tax Expense

	Years Ended December 31,			Year Ended 2020 vs. 2019 Change	
	2020	2019	2018	Favorable/ (Unfavorable)	%
	Income tax expense	\$ 1,774	\$ 769	\$ 474	\$ (1,005)

n.m. = not meaningful

In the year ended December 31, 2020, Income tax expense increased primarily due to changes in valuation allowance, an increase in pre-tax income, and the absence of U.S. tax benefits from foreign activity.

For the year ended December 31, 2020 our ETR-adjusted was 18.4%. We expect our adjusted effective tax rate to be approximately 24% for the year ending December 31, 2021.

Refer to Note 17 to our consolidated financial statements for additional information related to Income tax expense.

GM North America

	Years Ended December 31,				Variance Due To				
	2020	2019	Favorable/ (Unfavorable)	%	Volume	Mix	Price	Cost	Other
						(Dollars in billions)			
Total net sales and revenue	\$ 96,733	\$ 106,366	\$ (9,633)	(9.1)%	\$(15.1)	\$ 2.7	\$ 3.3		\$ (0.5)
EBIT-adjusted	\$ 9,071	\$ 8,204	\$ 867	10.6 %	\$ (4.1)	\$ 0.5	\$ 3.3	\$ 1.3	\$ (0.1)
EBIT-adjusted margin	9.4 %	7.7 %	1.7 %						
	(Vehicles in thousands)								
Wholesale vehicle sales	2,707	3,214	(507)	(15.8)%					

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GMNA Total Net Sales and Revenue In the year ended December 31, 2020, Total net sales and revenue decreased primarily due to: (1) decreased net wholesale volumes across most vehicle lines as a result of suspending production due to the COVID-19 pandemic, partially offset by lost production volumes associated with the UAW strike in 2019; and (2) unfavorable Other primarily due to decreased sales of parts and accessories due to the COVID-19 pandemic and foreign currency effect resulting from the weakening of the Mexican Peso against the U.S. Dollar; partially offset by (3) favorable price primarily due to full-size SUVs, pickup trucks and crossover vehicles; and (4) favorable mix associated with decreased sales of passenger cars and crossover vehicles, improved mix associated with our new full-size pickup trucks, partially offset by decreased sales of full-size SUVs.

GMNA EBIT-Adjusted The most significant factors that influence profitability are industry volume and market share. While not as significant as industry volume and market share, another factor affecting profitability is the relative mix of vehicles sold. Trucks, crossovers and cars sold currently have a variable profit of approximately 160%, 60% and 30% of our GMNA portfolio on a weighted-average basis.

In the year ended December 31, 2020, EBIT-adjusted increased primarily due to: (1) favorable price; (2) favorable Cost due to savings in advertising, manufacturing, engineering and other administrative and selling of \$2.1 billion, inclusive of the suspension of production and austerity measures in response to the COVID-19 pandemic as well as transformation activities; partially offset by increased material and freight cost of \$0.7 billion, and increased costs of \$0.4 billion primarily due to the Takata recall of \$1.1 billion partially offset by decreased other campaigns and warranty-related costs; and (3) favorable mix; partially offset by (4) decreased net wholesale volumes.

GM International

	Years Ended December 31,		Favorable/ (Unfavorable)	%	Variance Due To				
	2020	2019			Volume	Mix	Price	Cost	Other
(Dollars in billions)									
Total net sales and revenue	\$ 11,586	\$ 16,111	\$ (4,525)	(28.1)%	\$ (4.4)	\$ 1.2	\$ 0.5		\$ (1.8)
EBIT (loss)-adjusted	\$ (528)	\$ (202)	\$ (326)	n.m.	\$ (0.5)	\$ 0.3	\$ 0.6	\$ 0.2	\$ (0.9)
EBIT (loss)-adjusted margin	(4.6)%	(1.3)%	(3.3)%						
<i>Equity income — Automotive China</i>	\$ 512	\$ 1,132	\$ (620)	(54.8)%					
<i>EBIT (loss)-adjusted — excluding Equity income</i>	\$ (1,040)	\$ (1,334)	\$ 294	22.0 %					
	(Vehicles in thousands)								
Wholesale vehicle sales	663	995	(332)	(33.4)%					

n.m. = not meaningful

The vehicle sales of our Automotive China JVs are not recorded in Total net sales and revenue. The results of our joint ventures are recorded in Equity income, which is included in EBIT (loss)-adjusted above.

GMI Total Net Sales and Revenue In the year ended December 31, 2020, Total net sales and revenue decreased primarily due to: (1) decreased wholesale volumes primarily due to lower industry volumes due to the COVID-19 pandemic primarily in South America and lower volumes in Asia/Pacific inclusive of the wind-down of our vehicle sales operations in Australia, New Zealand and Thailand; (2) unfavorable Other primarily due to the foreign currency effect resulting from the weakening of the Brazilian Real and Argentine Peso against the U.S. Dollar and decreased components, parts and accessories sales; partially offset by (3) favorable mix primarily in Brazil; and (4) favorable pricing across multiple vehicle lines in Argentina and Brazil.

GMI EBIT (loss)-Adjusted In the year ended December 31, 2020, EBIT (loss)-adjusted increased primarily due to: (1) unfavorable volume; (2) unfavorable Other primarily due to decreased equity income and the foreign currency effect resulting from the weakening of the Brazilian Real and Argentine Peso against the U.S. Dollar; partially offset by (3) favorable pricing; (4) favorable mix primarily in Brazil and Asia/Pacific; and (5) favorable Cost primarily due to decreased advertising and engineering expenses, inclusive of savings related to the wind-down of Holden sales, design and engineering operations and sale of our vehicle and powertrain manufacturing facilities in Thailand, partially offset by increased material cost.

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We view the Chinese market as important to our global growth strategy and are employing a multi-brand strategy. In the coming years we plan to leverage our global architectures to increase the number of product offerings under the Buick, Chevrolet and Cadillac brands in China and continue to grow our business under the local Baojun and Wuling brands. We operate in the Chinese market through a number of joint ventures and maintaining strong relationships with our joint venture partners is an important part of our China growth strategy.

The following table summarizes certain key operational and financial data for the Automotive China JVs (vehicles in thousands):

	Years Ended December 31,		
	2020	2019	2018
Wholesale vehicle sales including vehicles exported to markets outside of China	3,029	3,244	4,030
Total net sales and revenue	\$ 38,736	\$ 39,123	\$ 50,316
Net income	\$ 1,239	\$ 2,258	\$ 3,992

	December 31, 2020	December 31, 2019
Cash and cash equivalents	\$ 8,980	\$ 6,257
Debt	\$ 313	\$ 109

Cruise

	Years Ended December 31,			2020 vs. 2019 Change	
	2020	2019	2018	Favorable/ (Unfavorable)	%
Total net sales and revenue(a)	\$ 103	\$ 100	\$ —	\$ 3	3.0 %
EBIT (loss)-adjusted	\$ (887)	\$ (1,004)	\$ (728)	\$ 117	11.6 %

(a) Reclassified to Interest income and other non-operating income, net in our consolidated income statement in each of the years ended December 31, 2020 and 2019.

Cruise EBIT (Loss)-Adjusted In the year ended December 31, 2020, EBIT (loss)-adjusted decreased primarily due to a reduction in developmental costs as we progress towards the commercialization of a network of on-demand autonomous vehicles in the U.S., partially offset by an increase in administrative expense.

GM Financial

	Years Ended December 31,			2020 vs. 2019 Change	
	2020	2019	2018	Amount	%
Total revenue	\$13,831	\$14,554	\$14,016	\$ (723)	(5.0)%
Provision for loan losses	\$ 881	\$ 726	\$ 642	\$ 155	21.3 %
EBT-adjusted	\$ 2,702	\$ 2,104	\$ 1,893	\$ 598	28.4 %
Average debt outstanding (dollars in billions)	\$ 91.4	\$ 91.2	\$ 85.1	\$ 0.2	0.2 %
Effective rate of interest paid	3.3 %	4.0 %	3.8 %	(0.7)%	

GM Financial Revenue In the year ended December 31, 2020, Total revenue decreased primarily due to decreased leased vehicle income of \$0.5 billion primarily due to a decrease in the size of the leased vehicle portfolio and decreased investment income of \$0.1 billion resulting from a decline in benchmark interest rates.

GM Financial EBT-Adjusted In the year ended December 31, 2020, EBT-adjusted increased primarily due to: (1) decreased interest expense of \$0.6 billion due to a lower effective rate of interest on debt resulting from a decline in benchmark interest rates; (2) decreased leased vehicle expenses net of decreased leased vehicle income of \$0.3 billion primarily due to increased leased vehicle termination gains, due to the outperformance of used vehicle prices compared to residual value estimates and a decrease in the size of the leased vehicle portfolio; partially offset by (3) increased provision for loan losses of \$0.2 billion primarily due to increased expected charge-offs as a result of the forecasted economic impact of the COVID-19 pandemic, inclusive of new CECL standard impacts.

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Liquidity and Capital Resources As described in the “Overview” section of this MD&A, the COVID-19 pandemic has had a material impact on our financial results and it may have a material impact on future periods, including our cash flows from operating activities and liquidity. The extent of the impact of COVID-19 on our liquidity will depend upon, among other things, the duration and severity of the outbreak or subsequent outbreaks, related government responses, such as required physical distancing or restrictions on business operations and travel, the pace of recovery of economic activity and the impact to consumers, the effectiveness of available vaccines and any potential supply disruptions, all of which are uncertain and difficult to predict. Refer to Part I, Item 1A. Risk Factors for a full discussion of the risks associated with the COVID-19 pandemic.

During 2020, to preserve financial flexibility in light of the uncertainty in global markets resulting from the COVID-19 pandemic, we borrowed \$15.9 billion under our revolving credit facilities, extended a portion of our revolving credit facilities for an additional year, issued \$4.0 billion in senior unsecured notes and entered into a new unsecured 364-day, \$2.0 billion revolving credit facility. We repaid all amounts drawn under the revolving credit facilities as of December 31, 2020. See the "Automotive Liquidity" section of this MD&A for additional information on these liquidity actions.

Despite the uncertainty resulting from the COVID-19 pandemic, we believe our current levels of cash, cash equivalents, and marketable debt securities, available borrowing capacity under our revolving credit facilities and other liquidity actions currently available to us are sufficient to meet our liquidity requirements. We also maintain access to the capital markets and may issue debt or equity securities, which may provide an additional source of liquidity. We have substantial cash requirements going forward, which we plan to fund through our total available liquidity, cash flows from operating activities and additional liquidity measures, if determined to be necessary.

The following summarizes aggregated information about our material short and long-term cash requirements from our known contractual and other obligations:

	Payments Due by Period				
	2021	2022-2023	2024-2025	2026 and after	Total
Automotive debt	\$ 1,199	\$ 2,619	\$ 2,618	11,260	17,696
Automotive Financing debt	35,742	34,579	14,417	7,277	92,015
Automotive interest payments(a)	947	1,807	1,532	8,439	12,725
Automotive Financing interest payments(b)	2,072	2,329	955	443	5,799
Operating lease obligations	266	436	312	498	1,512
Material	2,496	1,593	71	18	4,178

(a) Amounts include automotive interest payments based on contractual terms and current interest rates on our debt and finance lease obligations. Automotive interest payments based on variable interest rates were determined using the interest rate in effect at December 31, 2020.

(b) GM Financial interest payments were determined using the interest rate in effect at December 31, 2020 for floating rate debt and the contractual rates for fixed rate debt. GM Financial interest payments on floating rate tranches of the securitization notes payable were converted to a fixed rate based on the floating rate plus any expected hedge payments.

Our known current material uses of cash include, among other possible demands: (1) capital expenditures of approximately \$9.0 billion to \$10.0 billion in 2021 in addition to payments for engineering and product development activities; (2) payments associated with previously announced vehicle recalls, the settlements of the multi-district litigation and any other recall-related contingencies; and (3) payments to service debt and other long-term obligations, including discretionary and mandatory contributions to our pension plans. Our material future uses of cash, which may vary from time to time based on market conditions and other factors, are focused on the three objectives of our capital allocation program: (1) grow our business at an average target ROIC-adjusted rate of 20% or greater; (2) maintain a strong investment-grade balance sheet, including a target average automotive cash balance of \$18 billion; and (3) after the first two objectives are met, return available cash to shareholders. Our senior management evaluates our capital allocation program on an ongoing basis and recommends any modifications to the program to our Board of Directors, not less than once annually.

Our liquidity plans are subject to a number of risks and uncertainties, including those described in the "Forward-Looking Statements" section of this MD&A and Part I, Item 1A. Risk Factors, some of which are outside of our control.

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We continue to monitor and evaluate opportunities to strengthen our competitive position over the long term while maintaining a strong investment-grade balance sheet. These actions may include opportunistic payments to reduce our long-term obligations, as well as the possibility of acquisitions, dispositions, investments with joint venture partners and strategic alliances that we believe would generate significant advantages and substantially strengthen our business.

In January 2017, we announced that our Board of Directors had authorized the purchase of up to \$5.0 billion of our common stock with no expiration date, as part of our common stock repurchase program. We have completed \$1.7 billion of the \$5.0 billion program through December 31, 2020.

Cash flows occur amongst our Automotive, Cruise and GM Financial operations that are eliminated when we consolidate our cash flows. Such eliminations include, among other things, collections by Automotive on wholesale accounts receivables financed by dealers through GM Financial, payments between Automotive and GM Financial for accounts receivables transferred by Automotive to GM Financial, loans to Automotive from GM Financial, dividends issued by GM Financial to Automotive and Automotive cash injections in Cruise. The presentation of Automotive liquidity, Cruise liquidity and GM Financial liquidity presented below includes the impact of cash transactions amongst the sectors that are ultimately eliminated in consolidation.

Automotive Liquidity Total available liquidity includes cash, cash equivalents, marketable debt securities and funds available under credit facilities. The amount of available liquidity is subject to seasonal fluctuations and includes balances held by various business units and subsidiaries worldwide that are needed to fund their operations.

We manage our liquidity primarily at our treasury centers as well as at certain of our significant consolidated overseas subsidiaries. Over 90% of our cash and marketable debt securities were managed within North America and at our regional treasury centers at December 31, 2020. We have used and will continue to use other methods including intercompany loans to utilize these funds across our global operations as needed.

Our cash equivalents and marketable debt securities balances are primarily denominated in U.S. Dollars and include investments in U.S. government and agency obligations, foreign government securities, time deposits, corporate debt securities and mortgage and asset-backed securities. Our investment guidelines, which we may change from time to time, prescribe certain minimum credit worthiness thresholds and limit our exposures to any particular sector, asset class, issuance or security type. The majority of our current investments in debt securities are with A/A2 or better rated issuers.

We use credit facilities as a mechanism to provide additional flexibility in managing our global liquidity. At December 31, 2019, the total size of our credit facilities was \$17.5 billion, which consisted principally of three revolving credit facilities. In May 2020, as an additional source of available liquidity, we entered into a fourth facility, increasing the size of our credit facilities to \$18.5 billion. These facilities consist of a three-year, \$4.0 billion facility that includes a letter of credit sub-facility of \$1.1 billion, a five-year, \$10.5 billion facility, a three-year, \$2.0 billion transformation facility and a 364-day, \$2.0 billion revolving credit facility entered into in May 2020. Total borrowing capacity under our automotive credit facilities does not include a 364-day, \$2.0 billion facility designated for exclusive use by GM Financial.

In April 2020, we renewed our 364-day, \$2.0 billion facility designated for exclusive use by GM Financial for an additional 364-day term and extended \$3.6 billion of the three-year, \$4.0 billion facility for an additional year expiring in April 2022. The remaining portion will expire in April 2021, unless extended. As part of the extension of the three-year, \$4.0 billion facility, we agreed not to execute any share repurchases while we have any outstanding borrowings under the revolving credit facilities, except for the three-year, \$2.0 billion transformation facility. In addition, we are restricted from paying dividends on our common shares if outstanding borrowings under the revolving credit facilities exceed \$5.0 billion, with the exception of the three-year, \$2.0 billion transformation facility.

In 2020, we borrowed \$3.4 billion against our three-year, \$4.0 billion facility, \$2.0 billion against our three-year, \$2.0 billion transformation facility and \$10.5 billion against our five-year, \$10.5 billion facility. We repaid all amounts drawn under the revolving credit facilities as of December 31, 2020. We had letters of credit outstanding under our sub-facility of \$0.3 billion and \$0.2 billion at December 31, 2020 and 2019.

If available capacity permits, GM Financial has access to our revolving credit facilities, except for the three-year, \$2.0 billion transformation facility and the new 364-day \$2.0 billion facility. GM Financial did not have borrowings outstanding against our revolving credit facilities at December 31, 2020 and 2019. Refer to Note 13 to our consolidated financial statements for additional information on credit facilities. We had intercompany loans from GM Financial of \$0.4 billion and \$0.5 billion at

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December 31, 2020 and 2019, which primarily consisted of commercial loans to dealers we consolidate, and we had no intercompany loans to GM Financial. Refer to Note 5 of our consolidated financial statements for additional information.

In May 2020, we issued \$4.0 billion in aggregate principal amount of senior unsecured notes with a weighted average interest rate of 6.11% and maturity dates ranging from 2023 to 2027. The notes are governed by a sixth supplemental indenture and the same base indenture that governs our existing notes, which contains terms and covenants customary for these types of securities, including a limitation on the amount of certain secured debt we may incur. The net proceeds from the issuance of these senior unsecured notes provide additional financial flexibility and will be used for general corporate purposes. In August 2020, we repaid \$0.5 billion of our floating rate senior unsecured debt upon maturity.

Several of our loan facilities, including our revolving credit facilities, require compliance with certain financial and operational covenants as well as regular reporting to lenders. We have reviewed our covenants in effect as of December 31, 2020 and determined we are in compliance and expect to remain in compliance in the future.

GM Financial's Board of Directors declared and paid dividends of \$0.8 billion and \$0.4 billion on its common stock in 2020 and 2019. Future dividends from GM Financial will depend on a number of factors including business and economic conditions, its financial condition, earnings, liquidity requirements and leverage ratio.

The following table summarizes our available liquidity (dollars in billions):

	December 31, 2020	December 31, 2019
Automotive cash and cash equivalents	\$ 14.2	\$ 13.4
Marketable debt securities	8.1	3.9
Automotive cash, cash equivalents and marketable debt securities	22.3	17.3
Cruise cash and cash equivalents(a)	0.8	2.3
Cruise marketable debt securities(a)	0.9	0.3
Available liquidity	24.0	19.9
Available under credit facilities	18.2	17.3
Total available liquidity	<u>\$ 42.2</u>	<u>\$ 37.2</u>

(a) Amounts are designated exclusively for the use of Cruise. Refer to Note 20 to our consolidated financial statements for further details.

The following table summarizes the changes in our Automotive available liquidity (excluding Cruise, dollars in billions):

	Year Ended December 31, 2020
Operating cash flow	\$ 7.5
Capital expenditures	(5.3)
Dividends paid and payments to purchase common stock	(0.6)
Issuance of senior unsecured notes	4.0
Repayment of senior unsecured notes	(0.5)
Other non-operating(a)	(0.1)
Increase in available credit facilities	0.9
Total change in automotive available liquidity	<u>\$ 5.9</u>

(a) Amount includes \$0.5 billion of net payments on other debt including finance leases and several other insignificant items, partially offset by \$0.6 billion of proceeds from the sale of our remaining shares in Lyft.

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Automotive Cash Flow (Dollars in billions)

	Years Ended December 31,			2020 vs. 2019 Change
	2020	2019	2018	
Operating Activities				
Income from continuing operations	\$ 5.0	\$ 5.8	\$ 7.1	\$ (0.8)
Depreciation, amortization and impairment charges	5.5	6.7	6.1	(1.2)
Pension and OPEB activities	(1.6)	(1.5)	(3.4)	(0.1)
Working capital	(1.7)	(2.2)	0.7	0.5
Accrued and other liabilities and income taxes	(1.4)	(1.5)	1.9	0.1
Other	1.7	0.1	(0.7)	1.6
Net automotive cash provided by operating activities	<u>\$ 7.5</u>	<u>\$ 7.4</u>	<u>\$ 11.7</u>	<u>\$ 0.1</u>

In the year ended December 31, 2020, the increase in Net automotive cash provided by operating activities was primarily due to: (1) payments of \$1.1 billion in the prior year related to transformation activities; (2) working capital; (3) higher dividends received from GM Financial of \$0.4 billion; and (4) several other insignificant items; partially offset by (5) unwind of sales incentives of \$1.8 billion; and (6) lower dividends received from our nonconsolidated affiliates of \$0.7 billion.

	Years Ended December 31,			2020 vs. 2019 Change
	2020	2019	2018	
Investing Activities				
Capital expenditures	\$ (5.3)	\$ (7.5)	\$ (8.7)	\$ 2.2
Acquisitions and liquidations of marketable securities, net(a)	(3.6)	2.4	2.3	(6.0)
GM investment in Cruise	—	(0.7)	(1.1)	0.7
Other	0.1	0.2	(0.2)	(0.1)
Net automotive cash used in investing activities	<u>\$ (8.8)</u>	<u>\$ (5.6)</u>	<u>\$ (7.7)</u>	<u>\$ (3.2)</u>

(a) Amount includes \$0.6 billion and \$0.3 billion of proceeds from the sale of our shares in Lyft in the year ended December 31, 2020 and 2019.

In the year ended December 31, 2020, capital expenditures decreased primarily due to the delay of non-critical projects, including certain future product programs, in response to the COVID-19 pandemic. Cash used in acquisitions and liquidations of marketable securities, net increased due to the increased purchases of marketable securities with proceeds from the issuance of debt in response to the COVID-19 pandemic and increased liquidations of marketable securities for strike-related liquidity needs during 2019.

	Years Ended December 31,			2020 vs. 2019 Change
	2020	2019	2018	
Financing Activities				
Net proceeds (payments) from short-term debt	\$ (0.5)	\$ 0.5	\$ (1.4)	\$ (1.0)
Issuance of senior unsecured notes	4.0	—	2.1	4.0
Repayment of senior unsecured notes	(0.5)	—	—	(0.5)
Dividends paid and payments to purchase common stock	(0.6)	(2.2)	(2.3)	1.6
Proceeds from KDB investment in GM Korea	—	—	0.7	—
Other	(0.3)	(0.4)	(0.6)	0.1
Net automotive cash provided by (used in) financing activities	<u>\$ 2.1</u>	<u>\$ (2.1)</u>	<u>\$ (1.5)</u>	<u>\$ 4.2</u>

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Adjusted Automotive Free Cash Flow We measure adjusted automotive free cash flow as automotive operating cash flow from continuing operations less capital expenditures adjusted for management actions. For the year ended December 31, 2020, net automotive cash provided by operating activities under U.S. GAAP was \$7.5 billion, capital expenditures were \$5.3 billion and adjustments for management actions, primarily related to GMI restructuring, were \$0.3 billion. For the year ended December 31, 2019, net automotive cash provided by operating activities under U.S. GAAP was \$7.4 billion, capital expenditures were \$7.5 billion and adjustments for management actions, primarily related to transformation activities, were \$1.2 billion.

Status of Credit Ratings We receive ratings from four independent credit rating agencies: DBRS Limited (DBRS), Fitch Ratings (Fitch), Moody's Investor Service (Moody's) and Standard & Poor's (S&P). All four credit rating agencies currently rate our corporate credit at investment grade. The following table summarizes our credit ratings at January 29, 2021:

	Corporate	Revolving Credit Facilities	Senior Unsecured	Outlook
DBRS	BBB	BBB	N/A	Negative
Fitch	BBB-	BBB-	BBB-	Stable
Moody's	Investment Grade	Baa2	Baa3	Negative
S&P	BBB	BBB	BBB	Negative

Cruise Liquidity

The changes in our Cruise available liquidity in the year ended December 31, 2020 were primarily driven by operating cash flow. In January 2021, Cruise Holdings issued Class G Preferred Shares in exchange for \$2.2 billion from Microsoft and other investors, including \$1.0 billion from General Motors Holdings LLC. Refer to Note 26 to our consolidated financial statements for additional information. When Cruise's autonomous vehicles are ready for commercial deployment, Softbank Vision Fund (AIV M2), L.P. (The Vision Fund) is obligated to purchase additional convertible preferred shares (Cruise Preferred Shares) for \$1.35 billion.

Cruise Cash Flow (Dollars in billions)

	Years Ended December 31,			2020 vs. 2019 Change
	2020	2019	2018	
Net cash used in operating activities	\$ (0.8)	\$ (0.8)	\$ (0.6)	\$ —
Net cash used in investing activities	\$ (0.7)	\$ (0.3)	\$ (0.1)	\$ (0.4)
Net cash provided by financing activities	\$ —	\$ 1.1	\$ 3.0	\$ (1.1)

In the year ended December 31, 2020, Net cash provided by financing activities decreased primarily due to a reduction in the issuance of preferred shares.

Automotive Financing – GM Financial Liquidity GM Financial's primary sources of cash are finance charge income, leasing income and proceeds from the sale of terminated leased vehicles, net distributions from credit facilities, securitizations, secured and unsecured borrowings and collections and recoveries on finance receivables. GM Financial's primary uses of cash are purchases of retail finance receivables and leased vehicles, the funding of commercial finance receivables, repayment or repurchases of secured and unsecured debt, funding credit enhancement requirements in connection with securitizations and secured credit facilities, interest costs, operating expenses and dividend payments. The following table summarizes GM Financial's available liquidity (dollars in billions):

	December 31, 2020	December 31, 2019
Cash and cash equivalents	\$ 5.1	\$ 3.3
Borrowing capacity on unpledged eligible assets	19.0	17.5
Borrowing capacity on committed unsecured lines of credit	0.5	0.3
Borrowing capacity on revolving credit facility, exclusive to GM Financial	2.0	2.0
Total GM Financial available liquidity	<u>\$ 26.6</u>	<u>\$ 23.1</u>

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In the year ended December 31, 2020, available liquidity increased primarily due to an increase in cash and cash equivalents and available borrowing capacity on unpledged eligible assets, resulting from the issuance of securitization transactions, unsecured debt and preferred stock. GM Financial structures liquidity to support at least six months of GM Financial's expected net cash outflows, including new originations, without access to new debt financing transactions or other capital markets activity.

GM Financial has access to \$16.5 billion of our revolving credit facilities with exclusive access to the 364-day, \$2.0 billion facility. Refer to the "Automotive Liquidity" section of this MD&A for additional details. We have a support agreement with GM Financial which, among other things, establishes commitments of funding from us to GM Financial. This agreement also provides that we will continue to own all of GM Financial's outstanding voting shares so long as any unsecured debt securities remain outstanding at GM Financial. In addition, we are required to use our commercially reasonable efforts to ensure GM Financial remains a subsidiary borrower under our corporate revolving credit facilities.

Credit Facilities In the normal course of business, in addition to using its available cash, GM Financial utilizes borrowings under its credit facilities, which may be secured or unsecured, and GM Financial repays these borrowings as appropriate under its cash management strategy. At December 31, 2020, secured, committed unsecured and uncommitted unsecured credit facilities totaled \$26.2 billion, \$0.5 billion and \$1.5 billion with advances outstanding of \$3.7 billion, an insignificant amount and \$1.5 billion.

GM Financial Cash Flow (Dollars in billions)

	Years Ended December 31,			2020 vs. 2019 Change
	2020	2019	2018	
Net cash provided by operating activities	\$ 8.0	\$ 8.1	\$ 7.4	\$ (0.1)
Net cash used in investing activities	\$ (9.3)	\$ (5.0)	\$ (17.5)	\$ (4.3)
Net cash provided by (used in) financing activities	\$ 2.4	\$ (3.5)	\$ 11.1	\$ 5.9

In the year ended December 31, 2020, Net cash provided by operating activities decreased primarily due to: (1) a decrease in leased vehicle income of \$0.5 billion; and (2) a decrease in derivative collateral posting activities of \$0.1 billion; partially offset by (3) a decrease in interest paid of \$0.5 billion.

In the year ended December 31, 2020, Net cash used in investing activities increased primarily due to: (1) increased purchases of finance receivables of \$4.9 billion; and (2) decreased collections and recoveries on finance receivables of \$0.7 billion; partially offset by (3) decreased purchases of leased vehicles of \$1.2 billion.

In the year ended December 31, 2020, Net cash provided by financing activities increased primarily due to: (1) an increase in borrowings of \$22.2 billion; and (2) issuance of preferred stock of \$0.5 billion; partially offset by (3) an increase in debt repayments of \$16.4 billion; and (4) an increase in dividend payments of \$0.4 billion.

Off-Balance Sheet Arrangements

Not applicable.

Contractual Obligations and Other Long-Term Liabilities

Not applicable.

Critical Accounting Estimates The consolidated financial statements are prepared in conformity with U.S. GAAP, which requires the use of estimates, judgments and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses in the periods presented. We believe the accounting estimates employed are appropriate and the resulting balances are reasonable; however, due to the inherent uncertainties in developing estimates, actual results could differ from the original estimates, requiring adjustments to these balances in future periods. Refer to Note 2 to our consolidated financial statements for our significant accounting policies related to our critical accounting estimates.

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Product Warranty and Recall Campaigns The estimates related to product warranties are established using historical information on the nature, frequency and average cost of claims of each vehicle line or each model year of the vehicle line and assumptions about future activity and events. When little or no claims experience exists for a model year or a vehicle line, the estimate is based on comparable models.

We accrue the costs related to product warranty at the time of vehicle sale and we accrue the estimated cost of recall campaigns when they are probable and estimable, which is generally at the time of sale.

The estimates related to recall campaigns accrued at the time of vehicle sale are established by applying a paid loss approach that considers the number of historical recall campaigns and the estimated cost for each recall campaign. These estimates consider the nature, frequency and magnitude of historical recall campaigns, and use key assumptions including the number of historical periods and the weighting of historical data in the reserve studies. Costs associated with recall campaigns not accrued at the time of vehicle sale are estimated based on the estimated cost of repairs and the estimated vehicles to be repaired. Depending on part availability and time to complete repairs we may, from time to time, offer courtesy transportation at no cost to our customers. These estimates are re-evaluated on an ongoing basis and based on the best available information. Revisions are made when necessary based on changes in these factors.

The estimated amount accrued for recall campaigns at the time of vehicle sale is most sensitive to the estimated number of recall events, the number of vehicles per recall event, the assumed number of vehicles that will be brought in by customers for repair (take rate) and the cost per vehicle for each recall event. The estimated cost of a recall campaign that is accrued on an individual basis is most sensitive to our estimated assumed take rate that is primarily developed based on our historical take rate experience. A 10% increase in the estimated take rate for all recall campaigns would increase the estimated cost by approximately \$0.4 billion.

Actual experience could differ from the amounts estimated requiring adjustments to these liabilities in future periods. Due to the uncertainty and potential volatility of the factors contributing to developing estimates, changes in our assumptions could materially affect our results of operations.

Sales Incentives The estimated effect of sales incentives offered to dealers and end customers is recorded as a reduction of Automotive net sales and revenue at the time of sale. There may be numerous types of incentives available at any particular time. Incentive programs are generally specific to brand, model or sales region and are for specified time periods, which may be extended. Significant factors used in estimating the cost of incentives include type of program, forecasted sales volume, product mix, and the rate of customer acceptance of incentive programs, all of which are estimated based on historical experience and assumptions concerning future customer behavior and market conditions. A change in any of these factors affecting the estimate could have a significant effect on recorded sales incentives. A 10% increase in the cost of incentives would increase the sales incentive liability by approximately \$0.3 billion. Subsequent adjustments to incentive estimates are possible as facts and circumstances change over time, which could affect the revenue previously recognized in Automotive net sales and revenue.

GM Financial Allowance for Loan Losses The GM Financial retail finance receivables portfolio consists of smaller-balance, homogeneous loans that are carried at amortized cost, net of allowance for loan losses. The allowance for loan losses on retail finance receivables reflects net credit losses expected to be incurred over the remaining life of the retail finance receivables, which have a weighted average remaining life of approximately two years. We forecast net credit losses based on relevant information about past events, current conditions and forecast economic performance. We believe that the allowance is adequate to cover expected credit losses on the retail finance receivables; however, because the allowance for loan losses is based on estimates, there can be no assurance that the ultimate charge-off amount will not exceed such estimates or that our credit loss assumptions will not increase.

GM Financial incorporates assumptions about forecast charge-off recovery rates and overall economic performance in its allowance estimate. Used vehicle prices rebounded in the second half of 2020 after decreasing in March and April 2020, and recoveries outperformed the forecast. Therefore, GM Financial increased its recovery rate forecast as of December 31, 2020. Each 5% relative decrease/increase in the forecast recovery rates could increase/decrease our allowance for loan losses by approximately \$0.1 billion.

GM Financial updated its forecast of economic performance in March 2020, following the onset of the COVID-19 pandemic, and has continued to monitor and update the forecast through December 31, 2020. At December 31, 2020, the weightings applied to the economic forecast scenarios considered resulted in an allowance for loan losses on the retail finance receivables portfolio of \$1.9 billion. Using different possible weightings that GM Financial could apply to the economic forecast scenarios

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result in an allowance for loan losses ranging from \$1.8 billion to \$2.0 billion. Actual economic data and recovery rates that are lower than those forecasted by GM Financial could result in an increase to the allowance for loan losses.

The GM Financial commercial finance receivables portfolio consists of floorplan financing as well as dealer loans, which are loans to finance improvements to dealership facilities, to provide working capital, and to purchase and/or finance dealership real estate. The allowance for loan losses on commercial finance receivables is also based on estimates that, effective January 1, 2020, include historical loss experience for the consolidated portfolio, as well as the forecast for industry vehicle sales. There can be no assurance that the ultimate charge-off amount will not exceed such estimates or that GM Financial's credit loss assumptions will not increase.

Valuation of GM Financial Equipment on Operating Lease Assets and Residuals GM Financial has investments in leased vehicles recorded as operating leases, which relate to vehicle leases to retail customers with lease terms that typically range from two to five years. At lease inception an estimate is made of the expected residual value at the end of the lease term. The expected residual value is based on third-party data that considers various data points and assumptions, including, but not limited to, recent auction values, the expected future volume of returning leased vehicles, used vehicle prices, manufacturer incentive programs and fuel prices. Realization of the residual values is dependent on the future ability to market the vehicles under prevailing market conditions. The customer is obligated to make payments during the lease term for the difference between the purchase price and the contract residual value plus a money factor. However, since the customer is not obligated to purchase the vehicle at the end of the contract, GM Financial is exposed to a risk of loss to the extent the customer returns the vehicle prior to or at the end of the lease term and the value of the vehicle is lower than the residual value estimated at lease inception.

The following table summarizes vehicles included in GM Financial equipment on operating leases, net (vehicles in thousands):

	December 31, 2020	December 31, 2019
Crossovers	964	972
Trucks	275	288
SUVs	92	108
Cars	140	238
Total	1,471	1,606

At December 31, 2020, the estimated residual value of GM Financial's leased vehicles was \$29.2 billion. Depreciation reduces the carrying value of each leased asset in GM Financial's operating lease portfolio over time from its original acquisition value to its expected residual value at the end of the lease term.

GM Financial updated the residual value estimates on the operating lease portfolio to reflect the decrease in forecasted used vehicle prices in March 2020, following the onset of the COVID-19 pandemic, and has continued to monitor and update the residual value estimates through December 31, 2020. Used vehicle prices rebounded in the second half of 2020 after decreasing in March and April 2020, and sales proceeds on terminated leased vehicles outperformed the residual value estimates during the year ended December 31, 2020. Accordingly, GM Financial increased the residual value estimates at December 31, 2020, which will result in a prospective decrease in the depreciation rate over the remaining term of the leased vehicle portfolio. If used vehicle prices decrease, GM Financial would increase depreciation expense and/or record an impairment charge on the lease portfolio. If an impairment exists, GM Financial would determine any shortfall in recoverability of the leased vehicle asset groups by year, make and model. Recoverability is calculated as the excess of: (1) the sum of remaining lease payments plus estimated residual value; over (2) leased vehicles, net less deferred revenue. Alternatively, if used vehicle prices outperform GM Financial's latest estimates, it may record gains on sales of off-lease vehicles and/or decreased depreciation expense.

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The following table illustrates the effect of a 1% relative change in the estimated residual values at December 31, 2020, which could increase or decrease depreciation expense over the remaining term of the leased vehicle portfolio, holding all other assumptions constant (dollars in millions):

	Impact to Depreciation Expense
2021	\$ 198
2022	72
2023	21
2024 and thereafter	1
Total	\$ 292

Changes to residual values are rarely simultaneous across all maturities and segments, and also may impact return rates. If a decrease in residual values is concentrated among specific asset groups, the decrease could result in an immediate impairment charge. GM Financial reviewed the leased vehicle portfolio for indicators of impairment and determined that no impairment indicators were present at December 31, 2020 and 2019.

Used vehicle prices increased approximately 3% in 2020 compared to 2019, primarily due to low new vehicle inventory, largely driven by the suspension of manufacturing operations as a result of the COVID-19 pandemic, creating strong demand for used vehicles. In 2021, GM Financial expects used vehicle prices to decline by an amount in the low single digits on a percentage basis compared to 2020 levels as supply and demand dynamics normalize.

Pension and OPEB Plans Our defined benefit pension plans are accounted for on an actuarial basis, which requires the selection of various assumptions, including an expected long-term rate of return on plan assets, a discount rate, mortality rates of participants and expectation of mortality improvement. Our pension obligations include Korean statutory pension payments that are valued on a walk away basis. The expected long-term rate of return on U.S. plan assets that is utilized in determining pension expense is derived from periodic studies, which include a review of asset allocation strategies, anticipated future long-term performance of individual asset classes, risks using standard deviations and correlations of returns among the asset classes that comprise the plans' asset mix. While the studies give appropriate consideration to recent plan performance and historical returns, the assumptions are primarily long-term, prospective rates of return.

In December 2020, an investment policy study was completed for the U.S. pension plans. As a result of changes to our capital market assumptions, the weighted-average long-term rate of return on assets decreased from 5.9% at December 31, 2019 to 5.6% at December 31, 2020. The expected long-term rate of return on plan assets used in determining pension expense for non-U.S. plans is determined in a similar manner to the U.S. plans.

Another key assumption in determining net pension and OPEB expense is the assumed discount rate used to discount plan obligations. We estimate the assumed discount rate for U.S. plans using a cash flow matching approach, which uses projected cash flows matched to spot rates along a high quality corporate bond yield curve to determine the weighted-average discount rate for the calculation of the present value of cash flows. We apply the individual annual yield curve rates instead of the assumed discount rate to determine the service cost and interest cost, which more specifically links the cash flows related to service cost and interest cost to bonds maturing in their year of payment.

The Society of Actuaries (SOA) issued mortality improvement tables in the three months ended December 31, 2020. We incorporated these SOA mortality improvement tables into our December 31, 2020 measurement of U.S. pension and OPEB plans' benefit obligations. The change in these assumptions decreased the December 31, 2020 U.S. pension and OPEB plans' obligations by \$0.7 billion.

Significant differences in actual experience or significant changes in assumptions may materially affect the pension obligations. The effects of actual results differing from assumptions and the changing of assumptions are included in unamortized net actuarial gains and losses that are subject to amortization to pension expense over future periods. The unamortized pre-tax actuarial loss on our pension plans was \$8.4 billion and \$6.7 billion at December 31, 2020 and 2019. The year-over-year change is primarily due to a decrease in discount rates partially offset by higher than expected asset returns.

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The underfunded status of the U.S. pension plans remained unchanged in the year ended December 31, 2020 at \$5.4 billion primarily due to: (1) the unfavorable effect of a decrease in discount rates of \$5.6 billion; and (2) service and interest costs of \$1.9 billion; partially offset by (3) a favorable effect of actual returns on plan assets of \$6.6 billion; and (4) changes in mortality improvement assumptions and demographic gains of \$0.9 billion.

The following table illustrates the sensitivity to a change in certain assumptions for the pension plans, holding all other assumptions constant:

	U.S. Plans(a)		Non-U.S. Plans(a)	
	Effect on 2021 Pension Expense	Effect on December 31, 2020 PBO	Effect on 2021 Pension Expense	Effect on December 31, 2020 PBO
25 basis point decrease in discount rate	-\$81	+\$1,707	-\$1	+\$669
25 basis point increase in discount rate	+\$103	-\$1,634	+\$1	-\$634
25 basis point decrease in expected rate of return on assets	+\$142	N/A	+\$32	N/A
25 basis point increase in expected rate of return on assets	-\$142	N/A	-\$32	N/A

(a) The sensitivity does not include the effects of the individual annual yield curve rates applied for the calculation of the service and interest cost.

Refer to Note 15 to our consolidated financial statements for additional information on pension contributions, investment strategies, assumptions, the change in benefit obligations and related plan assets, pension funding requirements and future net benefit payments. Refer to Note 2 to our consolidated financial statements for a discussion of the inputs used to determine fair value for each significant asset class or category.

Valuation of Deferred Tax Assets The ability to realize deferred tax assets depends on the ability to generate sufficient taxable income within the carryback or carryforward periods provided for in the tax law for each applicable tax jurisdiction. The assessment regarding whether a valuation allowance is required or should be adjusted is based on an evaluation of possible sources of taxable income and also considers all available positive and negative evidence factors. Our accounting for the valuation of deferred tax assets represents our best estimate of future events. Changes in our current estimates due to unanticipated market conditions and governmental legislative actions or events, could have a material effect on our ability to utilize deferred tax assets. Refer to Note 17 to our consolidated financial statements for additional information on the composition of valuation allowances.

Forward-Looking Statements This report and the other reports filed by us with the SEC from time to time, as well as statements incorporated by reference herein and related comments by our management, may include "forward-looking statements" within the meaning of the U.S. federal securities laws. Forward-looking statements are any statements other than statements of historical fact. Forward-looking statements represent our current judgment about possible future events and are often identified by words like "aim," "anticipate," "appears," "approximately," "believe," "continue," "could," "designed," "effect," "estimate," "evaluate," "expect," "forecast," "goal," "initiative," "intend," "may," "objective," "outlook," "plan," "potential," "priorities," "project," "pursue," "seek," "should," "target," "when," "will," "would," or the negative of any of those words or similar expressions. In making these statements, we rely on assumptions and analysis based on our experience and perception of historical trends, current conditions and expected future developments as well as other factors we consider appropriate under the circumstances. We believe these judgments are reasonable, but these statements are not guarantees of any future events or financial results, and our actual results may differ materially due to a variety of important factors, many of which are beyond our control. These factors, which may be revised or supplemented in subsequent reports we file with the SEC, include, among others, the following: (1) our ability to deliver new products, services and customer experiences in response to increased competition and changing consumer preferences in the automotive industry; (2) our ability to timely fund and introduce new and improved vehicle models, including electric vehicles, that are able to attract a sufficient number of consumers; (3) the success of our crossovers, SUVs and full-size pickup trucks; (4) our highly competitive industry, which is characterized by excess manufacturing capacity and the use of incentives, and the introduction of new and improved vehicle models by our competitors; (5) our ability to deliver a broad portfolio of electric vehicles and drive increased consumer adoption; (6) the unique technological, operational, regulatory and competitive risks related to the timing and commercialization of autonomous vehicles; (7) the ongoing COVID-19 pandemic; (8) global automobile market sales volume, which can be volatile; (9) our significant business in China, which is subject to unique operational, competitive, regulatory and economic risks; (10) our joint ventures, which we cannot operate solely for our benefit and over which we may have limited control; (11) the international scale and footprint of our operations, which exposes us to a variety of unique political, economic,

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competitive and regulatory risks, including the risk of changes in government leadership and laws (including labor, tax and other laws), political instability and economic tensions between governments and changes in international trade policies, new barriers to entry and changes to or withdrawals from free trade agreements, public health crises, including the occurrence of a contagious disease or illness, such as the COVID-19 pandemic, changes in foreign exchange rates and interest rates, economic downturns in the countries in which we operate, differing local product preferences and product requirements, changes to and compliance with U.S. and foreign countries' export controls and economic sanctions, differing labor regulations, requirements and union relationships, differing dealer and franchise regulations and relationships, and difficulties in obtaining financing in foreign countries; (12) any significant disruption, including any work stoppages, at any of our manufacturing facilities; (13) the ability of our suppliers to deliver parts, systems and components without disruption and at such times to allow us to meet production schedules; (14) prices of raw materials used by us and our suppliers; (15) our ability to successfully and cost-effectively restructure our operations in the U.S. and various other countries and initiate additional cost reduction actions with minimal disruption; (16) the possibility that competitors may independently develop products and services similar to ours, or that our intellectual property rights are not sufficient to prevent competitors from developing or selling those products or services; (17) our ability to manage risks related to security breaches and other disruptions to our information technology systems and networked products, including connected vehicles and in-vehicle systems; (18) our ability to comply with increasingly complex, restrictive and punitive regulations relating to our enterprise data practices, including the collection, use, sharing and security of the Personal Identifiable Information of our customers, employees, or suppliers; (19) our ability to comply with extensive laws, regulations and policies applicable to our operations and products, including those relating to fuel economy and emissions and autonomous vehicles; (20) costs and risks associated with litigation and government investigations; (21) the costs and effect on our reputation of product safety recalls and alleged defects in products and services; (22) any additional tax expense or exposure; (23) our continued ability to develop captive financing capability through GM Financial; and (24) any significant increase in our pension funding requirements. For a further discussion of these and other risks and uncertainties, refer to Part I, Item 1A. Risk Factors.

We caution readers not to place undue reliance on forward-looking statements. Forward-looking statements speak only as of the date they are made, and we undertake no obligation to update publicly or otherwise revise any forward-looking statements, whether as a result of new information, future events or other factors, except where we are expressly required to do so by law.

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Item 7A. Quantitative and Qualitative Disclosures About Market Risk

The overall financial risk management program is under the responsibility of the Chief Financial Officer with support from the Financial Risk Council, which reviews and, where appropriate, approves strategies to be pursued to mitigate these risks. The Financial Risk Council comprises members of our management and functions under the oversight of the Audit Committee and Finance Committee of the Board of Directors. The Audit Committee and Finance Committee assist and guide the Board of Directors in its oversight of our financial and risk management strategies. A risk management control framework is utilized to monitor the strategies, risks and related hedge positions in accordance with the policies and procedures approved by the Financial Risk Council. Our financial risk management policy is designed to protect against risk arising from extreme adverse market movements on our key exposures.

Automotive The following analyses provide quantitative information regarding exposure to foreign currency exchange rate risk, interest rate risk and equity price risk. Sensitivity analysis is used to measure the potential loss in the fair value of financial instruments with exposure to market risk. The models used assume instantaneous, parallel shifts in exchange rates and interest rate yield curves. For options and other instruments with nonlinear returns, models appropriate to these types of instruments are utilized to determine the effect of market shifts. There are certain shortcomings inherent in the sensitivity analyses presented, primarily due to the assumption that interest rates change in a parallel fashion and that spot exchange rates change instantaneously. In addition, the analyses are unable to reflect the complex market reactions that normally would arise from the market shifts modeled and do not contemplate the effects of correlations between foreign currency exposures and offsetting long-short positions in currency or other exposures, such as interest rates, which may significantly reduce the potential loss in value.

Foreign Currency Exchange Rate Risk We have foreign currency exposures related to buying, selling and financing in currencies other than the functional currencies of our operations. At December 31, 2020, our most significant foreign currency exposures were between the U.S. Dollar and the Canadian Dollar, Korean Won, Euro, Chinese Yuan, Brazilian Real and Mexican Peso. Derivative instruments such as foreign currency forwards, swaps and options are primarily used to hedge

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exposures with respect to forecasted revenues, costs and commitments denominated in foreign currencies. Such contracts had remaining maturities of up to 12 months at December 31, 2020.

The net fair value liability of financial instruments with exposure to foreign currency risk was \$0.9 billion and \$1.4 billion at December 31, 2020 and 2019. These amounts are calculated utilizing a population of foreign currency exchange derivatives and foreign currency denominated debt and exclude the offsetting effect of foreign currency cash, cash equivalents and other assets. The potential loss in fair value for such financial instruments from a 10% adverse change in all quoted foreign currency exchange rates would have been \$0.1 billion and \$0.2 billion at December 31, 2020 and 2019.

We are exposed to foreign currency risk due to the translation and remeasurement of the results of certain international operations into U.S. Dollars as part of the consolidation process. We had foreign currency derivatives with notional amounts of \$2.2 billion and \$5.1 billion at December 31, 2020 and 2019. The fair value of these derivative financial instruments was insignificant. Fluctuations in foreign currency exchange rates can therefore create volatility in the results of operations and may adversely affect our financial condition.

The following table summarizes the amounts of automotive foreign currency translation and transaction and remeasurement (gains) losses:

	Years Ended December 31,	
	2020	2019
Translation losses recorded in Accumulated other comprehensive loss	\$ 387	\$ 32
Transaction and remeasurement (gains) losses recorded in earnings	\$ 209	\$ (77)

Interest Rate Risk We are subject to market risk from exposure to changes in interest rates related to certain financial instruments, primarily debt, finance lease obligations and certain marketable debt securities. We did not have any interest rate swap positions to manage interest rate exposures in our automotive operations at December 31, 2020 and 2019. The fair value of debt and finance leases was \$21.6 billion and \$15.9 billion at December 31, 2020 and 2019. The potential increase in fair value resulting from a 10% decrease in quoted interest rates would have been \$0.7 billion and \$0.6 billion at December 31, 2020 and 2019.

We had marketable debt securities of \$9.0 billion and \$4.2 billion classified as available-for-sale at December 31, 2020 and 2019. The potential decrease in fair value from a 50 basis point increase in interest rates would have had an insignificant effect at December 31, 2020 and 2019.

Equity Price Risk We are subject to equity price risk due to market price volatility primarily related to our investment in PSA warrants. The fair value of investments with exposure to equity price risk was \$1.2 billion and \$1.5 billion at December 31, 2020 and 2019. Our investment in PSA warrants is valued based on a Black-Scholes formula. We estimate that a 10% adverse change in quoted security prices in PSA Group would impact our investment by \$0.1 billion at December 31, 2020 and 2019.

Automotive Financing - GM Financial

Interest Rate Risk Fluctuations in market interest rates can affect GM Financial's gross interest rate spread, which is the difference between interest earned on finance receivables and interest paid on debt. GM Financial is exposed to interest rate risks as financial assets and liabilities have different characteristics that may impact financial performance. These differences may include tenor, yield, re-pricing timing, and prepayment expectations. Typically retail finance receivables and leases purchased by GM Financial earn fixed interest and commercial finance receivables originated by GM Financial earn variable interest. GM Financial funds its business with variable or fixed rate debt. The variable rate debt is subject to adjustments to reflect prevailing market interest rates. To help mitigate interest rate risk or mismatched funding, GM Financial may employ hedging.

Quantitative Disclosure GM Financial measures the sensitivity of its net interest income to changes in interest rates by using interest rate scenarios that assume a hypothetical, instantaneous parallel shift of one hundred basis points in all interest rates across all maturities, as well as a base case that assumes that rates perform at the current market forward curve. However, interest rate changes are rarely instantaneous or parallel and rates could move more or less than the one percentage point assumed in our analysis. Therefore, the actual impact to net interest income could be higher or lower than the results detailed in

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the table below. These interest rate scenarios are purely hypothetical and do not represent our view of future interest rate movements.

At December 31, 2020, GM Financial was asset-sensitive, meaning that more assets than liabilities were expected to re-price within the next twelve months. During a period of rising interest rates, the interest earned on assets would increase more than the interest paid on liabilities, which would initially increase net interest income. During a period of falling interest rates, net interest income would be expected to initially decrease. At December 31, 2019, GM Financial was liability-sensitive, meaning that more liabilities than assets were expected to re-price within the next twelve months. During a period of rising interest rates, the interest paid on liabilities would increase more than the interest earned on assets, which would initially decrease net interest income. During a period of falling interest rates, net interest income would be expected to initially increase.

GM Financial's net interest income sensitivity increased in 2020 as compared to 2019 primarily due to an increased proportion of rate sensitive asset exposure relative to rate sensitive liability exposure. GM Financial's hedging strategies approved by its global asset liability committee are used to manage interest rate risk within policy guidelines. The following table presents GM Financial's net interest income sensitivity to interest rate movement:

	Years Ended December 31,	
	2020	2019
One hundred basis points instantaneous increase in interest rates	\$ 29.7	\$ (4.6)
One hundred basis points instantaneous decrease in interest rates(a)	\$ (29.7)	\$ 4.6

(a) Net interest income sensitivity given a one hundred basis point decrease in interest rates requires an assumption of negative interest rates in markets where existing interest rates are below one percent.

Additional Model Assumptions The sensitivity analysis presented is GM Financial's best estimate of the effect of the hypothetical interest rate scenarios; however, actual results could differ. The estimates are also based on assumptions including the amortization and prepayment of the finance receivable portfolio, originations of finance receivables and leases, refinancing of maturing debt, replacement of maturing derivatives and exercise of options embedded in debt and derivatives. The prepayment projections are based on historical experience. If interest rates or other factors change, actual prepayment experience could be different than projected.

Foreign Currency Exchange Rate Risk GM Financial is exposed to foreign currency risk due to the translation and remeasurement of the results of certain international operations into U.S. Dollars as part of the consolidation process. Fluctuations in foreign currency exchange rates can therefore create volatility in the results of operations and may adversely affect GM Financial's financial condition.

GM Financial primarily finances its receivables and leased assets with debt in the same currency. When a different currency is used GM Financial may use foreign currency swaps to convert substantially all of its foreign currency debt obligations to the local currency of the receivables and leased assets to minimize any impact to earnings. As a result, GM Financial believes its market risk exposure relating to changes in currency exchange rates at December 31, 2020 was insignificant.

GM Financial had foreign currency swaps with notional amounts of \$7.6 billion and \$6.2 billion at December 31, 2020 and 2019. The net fair value of these derivative financial instruments was an asset of \$0.4 billion and an insignificant amount at December 31, 2020 and 2019.

The following table summarizes GM Financial's foreign currency translation and transaction and remeasurement (gains) losses:

	Years Ended December 31,	
	2020	2019
Translation (gains) losses recorded in Accumulated other comprehensive loss	\$ 82	\$ (5)
Transaction and remeasurement gains, net recorded in earnings	\$ (6)	\$ (8)

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and the Board of Directors of General Motors Company

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of General Motors Company and subsidiaries (the Company) as of December 31, 2020 and 2019, the related consolidated statements of income, comprehensive income, cash flows, and equity for each of the three years in the period ended December 31, 2020, and the related notes (collectively referred to as the “financial statements”). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2020 and 2019, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2020, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2020, based on criteria established in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated February 10, 2021 expressed an unqualified opinion thereon.

Basis for Opinion

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

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

Critical Audit Matters

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

Product warranty and recall campaigns

Description of the matter

As discussed in Note 12 to the financial statements, the liabilities for product warranty and recall campaigns amount to \$8.2 billion at December 31, 2020. The Company accrues for costs related to product warranty at the time of vehicle sale and accrues the estimated cost of recall campaigns when they are probable and estimable, which is generally at the time of sale.

Auditing these liabilities involved a high degree of subjectivity in evaluating management's estimates, due to the size, uncertainties, and potential volatility related to the estimated liabilities. Management's estimates consider historical claims experience, including the nature, frequency, and average cost of claims of each vehicle line or each model year of the vehicle line, and the key assumptions of historical data being predictive of future activity and events, in particular, the number of historical periods used and the weighing of historical data in the reserve studies.

How we addressed the matter in our audit

We evaluated the design and tested the operating effectiveness of internal controls over the Company's product warranty and recall campaign processes. We tested internal controls over management's review of the valuation models and significant assumptions for product warranty and recall including the warranty claims forecasted based on the frequency and average cost per warranty claim for product warranty, and the cost estimates related to recall campaigns. Our audit also included the evaluation of controls that address the completeness and accuracy of the data utilized in the valuation models.

Our audit procedures related to product warranty and recall campaigns also included, among others, evaluating the Company's estimation methodology, the related significant assumptions and underlying data, and performing analytical procedures to corroborate cost per vehicle based on historical claims data. Furthermore, we performed sensitivity analyses to evaluate the significant judgments made by management, including cost estimates to evaluate the impact on reserves from changes in assumptions. We performed analysis over the vehicle lines and model years that had little or no claims experience to ensure the vehicle and model substitutions are comparable. We also involved actuarial specialists to evaluate the methodologies and assumptions, and to test the actuarial calculations used by the Company.

Sales incentives

Description of the matter

Automotive sales and revenue represents the amount of consideration to which the Company expects to be entitled in exchange for transferring goods or providing services, which is net of dealer and customer sales incentives the Company expects to pay. As discussed in Note 2 to the financial statements, provisions for dealer and customer incentives are recorded as a reduction to Automotive net sales and revenue at the time of vehicle sale. The liabilities for dealer and customer allowances, claims and discounts amount to \$7.3 billion at December 31, 2020.

Auditing the estimate of sales incentives involved a high degree of judgment. Significant factors used by the Company in estimating its liability for retail incentives include type of program, forecasted sales volumes, product mix, and the rate of customer acceptance of incentive programs, all of which are estimated based on historical experience and assumptions concerning future customer behavior and market conditions. The Company's estimation model reflects the best estimate of the total incentive amount that the Company reasonably expects to pay at the time of sale. The estimated cost of incentives is forward-looking, and could be materially affected by future economic and market conditions.

How we addressed the matter in our audit

We evaluated the design and tested the operating effectiveness of internal controls over the Company's sales incentive process, including management's review of the estimation model, the significant assumptions (e.g., incentive cost per unit, customer take rate, and market conditions), and the data inputs used in the model.

Our audit procedures included, among others, the performance of analytical procedures to develop an independent range of the liability for retail incentives as of the balance sheet date. Our independent range was developed for comparison to the Company's recorded liability, and is based on historical claims, forecasted spend, and the specific vehicle mix of current dealer stock. In addition, we performed sensitivity analyses over the cost per unit assumption developed by management to evaluate the impact on the liability resulting from a change in the assumption. Lastly, we assessed management's forecasting process by performing quarterly hindsight analyses to assess the adequacy of prior forecasts.

Valuation of GM Financial Equipment on Operating Leases

Description of the matter

GM Financial has recorded investments in vehicles leased to retail customers under operating leases. As discussed in Note 2 to the financial statements, at the beginning of the lease, management establishes an expected residual value for each vehicle at the end of the lease term. The Company's estimated residual value of leased vehicles at the end of lease term was \$29.2 billion as of December 31, 2020.

Auditing management's estimate of the residual value of leased vehicles involved a high degree of judgment. Management's estimate is based, in part, on third-party data which considers inputs including recent auction values and significant assumptions regarding the expected future volume of leased vehicles that will be returned to the Company, used car prices, manufacturer incentive programs and fuel prices. Realization of the residual values is dependent on the future ability to market the vehicles under future prevailing market conditions.

How we addressed the matter in our audit

We evaluated the design and tested the operating effectiveness of the Company's controls over the lease residual estimation process, including controls over management's review of residual value estimates obtained from the Company's third-party provider and other significant assumptions.

Our procedures also included, among others, independently recalculating depreciation related to equipment on operating leases and performing sensitivity analyses related to significant assumptions. We also performed hindsight analyses to assess the propriety of management's estimate of residual values, as well as tested the completeness and accuracy of data from underlying systems and data warehouses that are used in the estimation models.

/s/ ERNST & YOUNG LLP

We have served as the Company's auditor since 2017.

Detroit, Michigan
February 10, 2021

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and the Board of Directors of General Motors Company

Opinion on Internal Control over Financial Reporting

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

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2020 and 2019, the related consolidated statements of income, comprehensive income, cash flows and equity for each of the three years in the period ended December 31, 2020, and the related notes and our report dated February 10, 2021 expressed an unqualified opinion thereon.

Basis for Opinion

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

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

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

Definition and Limitations of Internal Control Over Financial Reporting

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

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

/s/ ERNST & YOUNG LLP

Detroit, Michigan
February 10, 2021

GENERAL MOTORS COMPANY AND SUBSIDIARIES

Item 8. Financial Statements and Supplementary Data

CONSOLIDATED INCOME STATEMENTS
(In millions, except per share amounts)

	Years Ended December 31,		
	2020	2019	2018
Net sales and revenue			
Automotive	\$ 108,673	\$ 122,697	\$ 133,045
GM Financial	13,812	14,540	14,004
Total net sales and revenue (Note 3)	<u>122,485</u>	<u>137,237</u>	<u>147,049</u>
Costs and expenses			
Automotive and other cost of sales	97,539	110,651	120,656
GM Financial interest, operating and other expenses	11,274	12,614	12,298
Automotive and other selling, general and administrative expense	7,038	8,491	9,650
Total costs and expenses	<u>115,851</u>	<u>131,756</u>	<u>142,604</u>
Operating income	6,634	5,481	4,445
Automotive interest expense	1,098	782	655
Interest income and other non-operating income, net (Note 19)	1,885	1,469	2,596
Equity income (Note 8)	674	1,268	2,163
Income before income taxes	8,095	7,436	8,549
Income tax expense (Note 17)	1,774	769	474
Income from continuing operations	6,321	6,667	8,075
Loss from discontinued operations, net of tax (Note 22)	—	—	70
Net income	<u>6,321</u>	<u>6,667</u>	<u>8,005</u>
Net loss attributable to noncontrolling interests	106	65	9
Net income attributable to stockholders	<u>\$ 6,427</u>	<u>\$ 6,732</u>	<u>\$ 8,014</u>
Net income attributable to common stockholders	\$ 6,247	\$ 6,581	\$ 7,916
Earnings per share (Note 21)			
Basic earnings per common share – continuing operations	\$ 4.36	\$ 4.62	\$ 5.66
Basic loss per common share – discontinued operations	\$ —	\$ —	\$ 0.05
Basic earnings per common share	\$ 4.36	\$ 4.62	\$ 5.61
Weighted-average common shares outstanding – basic	1,433	1,424	1,411
Diluted earnings per common share – continuing operations	\$ 4.33	\$ 4.57	\$ 5.58
Diluted loss per common share – discontinued operations	\$ —	\$ —	\$ 0.05
Diluted earnings per common share	\$ 4.33	\$ 4.57	\$ 5.53
Weighted-average common shares outstanding – diluted	1,442	1,439	1,431

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(In millions)

	Years Ended December 31,		
	2020	2019	2018
Net income	\$ 6,321	\$ 6,667	\$ 8,005
Other comprehensive income, net of tax (Note 20)			
Foreign currency translation adjustments and other	(523)	(6)	(715)
Defined benefit plans	(1,795)	(2,122)	(221)
Other comprehensive loss, net of tax	<u>(2,318)</u>	<u>(2,128)</u>	<u>(936)</u>
Comprehensive income	4,003	4,539	7,069
Comprehensive loss attributable to noncontrolling interests	92	76	15
Comprehensive income attributable to stockholders	<u>\$ 4,095</u>	<u>\$ 4,615</u>	<u>\$ 7,084</u>

Reference should be made to the notes to consolidated financial statements.

GENERAL MOTORS COMPANY AND SUBSIDIARIES

CONSOLIDATED BALANCE SHEETS

(In millions, except per share amounts)

	<u>December 31, 2020</u>	<u>December 31, 2019</u>
ASSETS		
Current Assets		
Cash and cash equivalents	\$ 19,992	\$ 19,069
Marketable debt securities (Note 4)	9,046	4,174
Accounts and notes receivable (net of allowance of \$224 and \$201)	8,035	6,797
GM Financial receivables, net (Note 5; Note 11 at VIEs)	26,209	26,601
Inventories (Note 6)	10,235	10,398
Other current assets (Note 4; Note 11 at VIEs)	7,407	7,953
Total current assets	80,924	74,992
Non-current Assets		
GM Financial receivables, net (Note 5; Note 11 at VIEs)	31,783	26,355
Equity in net assets of nonconsolidated affiliates (Note 8)	8,406	8,562
Property, net (Note 9)	37,632	38,750
Goodwill and intangible assets, net (Note 10)	5,230	5,337
Equipment on operating leases, net (Note 7; Note 11 at VIEs)	39,819	42,055
Deferred income taxes (Note 17)	24,136	24,640
Other assets (Note 4; Note 11 at VIEs)	7,264	7,346
Total non-current assets	154,270	153,045
Total Assets	\$ 235,194	\$ 228,037
LIABILITIES AND EQUITY		
Current Liabilities		
Accounts payable (principally trade)	\$ 19,928	\$ 21,018
Short-term debt and current portion of long-term debt (Note 13)		
Automotive	1,276	1,897
GM Financial (Note 11 at VIEs)	35,637	35,503
Accrued liabilities (Note 12)	23,069	26,487
Total current liabilities	79,910	84,905
Non-current Liabilities		
Long-term debt (Note 13)		
Automotive	16,193	12,489
GM Financial (Note 11 at VIEs)	56,788	53,435
Postretirement benefits other than pensions (Note 15)	6,277	5,935
Pensions (Note 15)	12,902	12,170
Other liabilities (Note 12)	13,447	13,146
Total non-current liabilities	105,607	97,175
Total Liabilities	185,517	182,080
Commitments and contingencies (Note 16)		
Equity (Note 20)		
Common stock, \$0.01 par value	14	14
Additional paid-in capital	26,542	26,074
Retained earnings	31,962	26,860
Accumulated other comprehensive loss	(13,488)	(11,156)
Total stockholders' equity	45,030	41,792
Noncontrolling interests	4,647	4,165
Total Equity	49,677	45,957
Total Liabilities and Equity	\$ 235,194	\$ 228,037

Reference should be made to the notes to consolidated financial statements.

GENERAL MOTORS COMPANY AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In millions)

	Years Ended December 31,		
	2020	2019	2018
Cash flows from operating activities			
Income from continuing operations	\$ 6,321	\$ 6,667	\$ 8,075
Depreciation and impairment of Equipment on operating leases, net	7,178	7,332	7,604
Depreciation, amortization and impairment charges on Property, net	5,637	6,786	6,065
Foreign currency remeasurement and transaction (gains) losses	203	(85)	168
Undistributed earnings of nonconsolidated affiliates, net	524	585	(141)
Pension contributions and OPEB payments	(851)	(985)	(2,069)
Pension and OPEB income, net	(765)	(484)	(1,280)
Provision (benefit) for deferred taxes	925	(133)	(112)
Change in other operating assets and liabilities (Note 25)	(399)	(3,789)	(1,376)
Other operating activities	(2,103)	(873)	(1,678)
Net cash provided by operating activities	<u>16,670</u>	<u>15,021</u>	<u>15,256</u>
Cash flows from investing activities			
Expenditures for property	(5,300)	(7,592)	(8,761)
Available-for-sale marketable securities, acquisitions	(16,204)	(4,075)	(2,820)
Available-for-sale marketable securities, liquidations	11,941	6,265	5,108
Purchases of finance receivables, net	(30,090)	(24,538)	(25,671)
Principal collections and recoveries on finance receivables	19,726	22,005	17,048
Purchases of leased vehicles, net	(15,233)	(16,404)	(16,736)
Proceeds from termination of leased vehicles	13,399	13,302	10,864
Other investing activities	(65)	138	39
Net cash used in investing activities – continuing operations	(21,826)	(10,899)	(20,929)
Net cash provided by investing activities – discontinued operations (Note 22)	—	—	166
Net cash used in investing activities	<u>(21,826)</u>	<u>(10,899)</u>	<u>(20,763)</u>
Cash flows from financing activities			
Net increase (decrease) in short-term debt	277	(312)	1,186
Proceeds from issuance of debt (original maturities greater than three months)	78,527	36,937	43,801
Payments on debt (original maturities greater than three months)	(72,663)	(39,156)	(33,323)
Proceeds from issuance of subsidiary preferred and common stock (Note 20)	492	457	2,862
Dividends paid	(669)	(2,350)	(2,242)
Other financing activities	(412)	(253)	(830)
Net cash provided by (used in) financing activities	<u>5,552</u>	<u>(4,677)</u>	<u>11,454</u>
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(222)	2	(299)
Net increase (decrease) in cash, cash equivalents and restricted cash	174	(553)	5,648
Cash, cash equivalents and restricted cash at beginning of period	<u>22,943</u>	<u>23,496</u>	<u>17,848</u>
Cash, cash equivalents and restricted cash at end of period	<u>\$ 23,117</u>	<u>\$ 22,943</u>	<u>\$ 23,496</u>
Significant Non-cash Investing and Financing Activity			
Non-cash property additions – continuing operations	\$ 2,300	\$ 2,837	\$ 3,813

Reference should be made to the notes to consolidated financial statements.

GENERAL MOTORS COMPANY AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF EQUITY
(In millions)

	Common Stockholders'					Total Equity
	Common Stock	Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Loss	Noncontrolling Interests	
Balance at January 1, 2018	\$ 14	\$ 25,371	\$ 17,627	\$ (8,011)	\$ 1,199	\$ 36,200
Adoption of accounting standards	—	—	(1,046)	(98)	—	(1,144)
Net income	—	—	8,014	—	(9)	8,005
Other comprehensive loss	—	—	—	(930)	(6)	(936)
Purchase of common stock	—	(91)	(99)	—	—	(190)
Issuance of subsidiary preferred and common stock (Note 20)	—	—	—	—	2,862	2,862
Stock based compensation	—	287	—	—	—	287
Cash dividends paid on common stock	—	—	(2,144)	—	—	(2,144)
Dividends to noncontrolling interests	—	—	—	—	(169)	(169)
Other	—	(4)	(30)	—	40	6
Balance at December 31, 2018	14	25,563	22,322	(9,039)	3,917	42,777
Net income	—	—	6,732	—	(65)	6,667
Other comprehensive loss	—	—	—	(2,117)	(11)	(2,128)
Issuance of subsidiary preferred stock (Note 20)	—	—	—	—	457	457
Stock based compensation	—	409	(34)	—	—	375
Cash dividends paid on common stock	—	—	(2,165)	—	—	(2,165)
Dividends to noncontrolling interests	—	—	—	—	(166)	(166)
Other	—	102	5	—	33	140
Balance at December 31, 2019	14	26,074	26,860	(11,156)	4,165	45,957
Adoption of accounting standards (Note 2)	—	—	(660)	—	—	(660)
Net income	—	—	6,427	—	(106)	6,321
Other comprehensive loss	—	—	—	(2,332)	14	(2,318)
Purchase of common stock	—	(57)	(33)	—	—	(90)
Issuance of subsidiary preferred stock (Note 20)	—	—	—	—	544	544
Stock based compensation	—	525	(10)	—	—	515
Cash dividends paid on common stock	—	—	(545)	—	—	(545)
Dividends to noncontrolling interests	—	—	—	—	(46)	(46)
Other	—	—	(77)	—	76	(1)
Balance at December 31, 2020	<u>\$ 14</u>	<u>\$ 26,542</u>	<u>\$ 31,962</u>	<u>\$ (13,488)</u>	<u>\$ 4,647</u>	<u>\$ 49,677</u>

Reference should be made to the notes to consolidated financial statements.

GENERAL MOTORS COMPANY AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1. Nature of Operations and Basis of Presentation

General Motors Company was incorporated as a Delaware corporation in 2009. We design, build and sell trucks, crossovers, cars and automobile parts worldwide and are investing in and growing an autonomous vehicle business. We also provide automotive financing services through GM Financial. We analyze the results of our continuing operations through the following segments: GMNA, GMI, Cruise and GM Financial. Cruise is our global segment responsible for the development and commercialization of autonomous vehicle technology. Nonsegment operations are classified as Corporate. Corporate includes certain centrally recorded income and costs such as interest, income taxes, corporate expenditures and certain nonsegment-specific revenues and expenses. The consolidated financial statements are prepared in conformity with U.S. GAAP. Except for per share amounts or as otherwise specified, amounts presented within tables are stated in millions.

Principles of Consolidation We consolidate entities that we control due to ownership of a majority voting interest and we consolidate variable interest entities (VIEs) when we are the primary beneficiary. All intercompany balances and transactions have been eliminated in consolidation. Our share of earnings or losses of nonconsolidated affiliates is included in our consolidated operating results using the equity method of accounting when we are able to exercise significant influence over the operating and financial decisions of the affiliate.

Use of Estimates in the Preparation of the Financial Statements Accounting estimates are an integral part of the consolidated financial statements. These estimates require the use of judgments and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses in the periods presented. We believe that the accounting estimates employed are appropriate and the resulting balances are reasonable; however, due to the inherent uncertainties in making estimates, actual results could differ from the original estimates, requiring adjustments to these balances in future periods.

GM Financial The amounts presented for GM Financial have been adjusted to include the effect of our tax attributes on GM Financial's deferred tax positions and provision for income taxes, which are not applicable to GM Financial on a stand-alone basis, and to eliminate the effect of transactions between GM Financial and the other members of the consolidated group. Accordingly, the amounts presented will differ from those presented by GM Financial on a stand-alone basis.

Note 2. Significant Accounting Policies

The accounting policies that follow are utilized by our automotive, automotive financing and Cruise operations, unless otherwise indicated. We adopted Accounting Standards Update (ASU) 2016-13 "Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments" (ASU 2016-13) on January 1, 2020 on a modified retrospective basis. As such, the comparative information in prior periods was not restated and continues to be reported under the accounting standards in effect for those periods. The accounting policies that follow for Marketable Debt Securities, Accounts and Notes Receivable and GM Financial Receivables that were affected by the adoption of ASU 2016-13 became effective on January 1, 2020.

Revenue Recognition

Automotive Automotive net sales and revenue represents the amount of consideration to which we expect to be entitled in exchange for vehicle, parts and accessories and services and other sales. The consideration recognized represents the amount received, typically shortly after the sale to a customer, net of estimated dealer and customer sales incentives we reasonably expect to pay. Significant factors in determining our estimates of incentives include forecasted sales volume, product mix and the rate of customer acceptance of incentive programs, all of which are estimated based on historical experience and assumptions concerning future customer behavior and market conditions. Subsequent adjustments to incentive estimates are possible as facts and circumstances change over time. A portion of the consideration received is deferred for separate performance obligations, such as maintenance and vehicle connectivity, that will be provided to our customers at a future date. Taxes assessed by various government entities, such as sales, use and value-added taxes, collected at the time of the vehicle sale are excluded from Automotive net sales and revenue. Costs for shipping and handling activities that occur after control of the vehicle transfers to the dealer are recognized at the time of sale and presented in Automotive and other cost of sales.

Vehicle, Parts and Accessories For the majority of vehicle and accessories sales, our customers obtain control and we recognize revenue when the vehicle transfers to the dealer, which generally occurs when the vehicle is released to the carrier responsible for transporting it to a dealer. Revenue, net of estimated returns, is recognized on the sale of parts upon delivery to

GENERAL MOTORS COMPANY AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

the customer. When our customers have a right to return eligible parts and accessories, we consider the returns in our estimation of the transaction price.

Transfers to daily rental companies are accounted for as sales, with revenue recognized at the time of transfer. We defer revenue for remarketing obligations, record a residual value guarantee and reflect a liability for amounts expected to be paid once the remarketing services are complete at the time of certain transfers and recognize deferred revenue in earnings upon completion of the remarketing service. Transfers containing a substantive repurchase obligation are accounted for as operating leases and rental income is recognized over the estimated term of the lease. Our total exposure to vehicle repurchase obligations is reduced to the extent vehicles are able to be resold to a third party.

Used Vehicles Proceeds from the auction of vehicles returned from daily rental car companies and vehicles utilized by our employees are recognized in Automotive net sales and revenue upon transfer of control of the vehicle to the customer and the related vehicle carrying value is recognized in Automotive and other cost of sales.

Services and Other Services and other revenue primarily consists of revenue from vehicle-related service arrangements and after-sale services such as maintenance, OnStar, vehicle connectivity and extended service warranties. For those service arrangements that are bundled with a vehicle sale, a portion of the revenue from the sale is allocated to the service component and recognized as deferred revenue within Accrued liabilities or Other liabilities. We recognize revenue for bundled services and services sold separately as services are performed, typically over a period of up to seven years.

Automotive Financing - GM Financial Finance charge income earned on finance receivables is recognized using the effective interest method. Fees and commissions received (including incentive payments) and direct costs of originating loans are deferred and amortized over the term of the related finance receivables using the effective interest method and are removed from the consolidated balance sheets when the related finance receivables are fully charged off or paid in full. Accrual of finance charge income on retail finance receivables is generally suspended on accounts that are more than 60 days delinquent, accounts in bankruptcy and accounts in repossession. Payments received on nonaccrual loans are first applied to any fees due, then to any interest due and then any remaining amounts are applied to principal. Interest accrual generally resumes once an account has received payments bringing the delinquency to less than 60 days past due. Accrual of finance charge income on commercial finance receivables is generally suspended on accounts that are more than 90 days delinquent, upon receipt of a bankruptcy notice from a borrower, or where reasonable doubt exists about the full collectability of contractually agreed upon principal and interest. Payments received on nonaccrual loans are first applied to principal. Interest accrual resumes once an account has received payments bringing the account fully current and collection of contractual principal and interest is reasonably assured (including amounts previously charged off).

Income from operating lease assets, which includes lease origination fees, net of lease origination costs, is recorded as operating lease revenue on a straight-line basis over the term of the lease agreement. Gains or losses realized upon disposition of off-lease assets including any payments received from lessees upon lease termination, are included in GM Financial interest, operating and other.

Advertising and Promotion Expenditures Advertising and promotion expenditures, which are expensed as incurred in Automotive and other selling, general and administrative expense, were \$2.7 billion, \$3.7 billion and \$4.0 billion in the years ended December 31, 2020, 2019 and 2018.

Research and Development Expenditures Research and development expenditures, which are expensed as incurred in Automotive and other cost of sales, were \$6.2 billion, \$6.8 billion and \$7.8 billion in the years ended December 31, 2020, 2019 and 2018. We enter into cost sharing arrangements with third parties or nonconsolidated affiliates for product-related research, engineering, design and development activities. Cost sharing payments and fees related to these arrangements are presented in Automotive and other cost of sales.

Cash Equivalents and Restricted Cash Cash equivalents are defined as short-term, highly-liquid investments with original maturities of 90 days or less. Certain operating agreements require us to post cash as collateral. Cash and cash equivalents subject to contractual restrictions and not readily available are classified as restricted cash. Restricted cash is invested in accordance with the terms of the underlying agreements and include amounts related to various deposits, escrows and other cash collateral. Restricted cash is included in Other current assets and Other assets in the consolidated balance sheets.

GENERAL MOTORS COMPANY AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

Fair Value Measurements A three-level valuation hierarchy, based upon observable and unobservable inputs, is used for fair value measurements. Observable inputs reflect market data obtained from independent sources, while unobservable inputs reflect market assumptions based on the best evidence available. These two types of inputs create the following fair value hierarchy: Level 1 – Quoted prices for identical instruments in active markets; Level 2 – Quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active and model-derived valuations whose significant inputs are observable; and Level 3 – Instruments whose significant inputs are unobservable.

Marketable Debt Securities We generally classify marketable debt securities as available-for-sale. Various factors, including turnover of holdings and investment guidelines, are considered in determining the classification of securities. Available-for-sale debt securities are recorded at fair value with non-credit related unrealized gains and losses recorded in Accumulated other comprehensive loss until realized. Non-credit related unrealized losses are reclassified to Interest income and other non-operating income, net if we intend to sell the security or it is more likely than not that we will be required to sell the security before the recovery of the unrealized loss. Credit losses are recorded in Interest income and other non-operating income, net. An evaluation is made quarterly to determine if any portion of unrealized losses recorded in Accumulated other comprehensive loss needs to be reclassified.

We determine realized gains and losses for all debt securities using the specific identification method and measure the fair value of our marketable debt securities using a market approach where identical or comparable prices are available and an income approach in other cases. If quoted market prices are not available, fair values of securities are determined using prices from a pricing service, pricing models, quoted prices of securities with similar characteristics or discounted cash flow models. These prices represent non-binding quotes. Our pricing service utilizes industry-standard pricing models that consider various inputs. We conduct an annual review of our pricing service and believe the prices received from our pricing service are a reliable representation of exit prices.

Accounts and Notes Receivable Accounts and notes receivable primarily consists of amounts that are due and payable from our customers for the sale of vehicles, parts, and accessories. We evaluate the collectability of receivables each reporting period and record an allowance for doubtful accounts to present the net amount expected to be collected on our receivables. Additions to the allowance are charged to bad debt expense reported in Automotive and other selling, general and administrative expense and were insignificant in the years ended December 31, 2020, 2019 and 2018.

GM Financial Receivables Finance receivables are carried at amortized cost, net of allowance for loan losses. Provisions for loan losses are charged to operations in amounts sufficient to maintain the allowance for loan losses at levels considered adequate to cover expected credit losses on the finance receivables. For retail finance receivables, GM Financial uses static pool modeling techniques to determine the allowance for loan losses expected over the remaining life of the receivables, which is supplemented by management judgment. The modeling techniques incorporate reasonable and supportable forecasts of economic conditions over the expected remaining life of the finance receivables. The economic forecasts incorporate factors which vary by region that GM Financial believes will have the largest impact on expected losses, including unemployment rates, interest rate spreads, disposable personal income and growth rates in gross domestic product.

Troubled debt restructurings (TDRs) are grouped separately for purposes of measuring the allowance. The allowance for TDRs uses static pool modeling techniques like non-TDR retail finance receivables to determine the expected loss amount. The expected cash flows of the receivables are then discounted at the original weighted average effective interest rate of the pool. Factors considered when estimating the allowance for TDRs are based on an evaluation of historical and current information, which may be supplemented by management judgment. Finance charge income from loans classified as TDRs is accounted for in the same manner as other accruing loans. Cash collections on these loans are allocated according to the same payment hierarchy methodology applied to loans that are not classified as TDRs.

Commercial finance receivables are carried at amortized cost, net of allowance for loan losses and amounts held under a cash management program. GM Financial establishes the allowance for loan losses based on historical loss experience, as well as the forecast for industry vehicle sales, which is the economic indicator believed to have the largest impact on expected losses.

Inventories Inventories are stated at the lower of cost or net realizable value. Net realizable value is the estimated selling price in the ordinary course of business less cost to sell, and considers general market and economic conditions, periodic reviews of current profitability of vehicles, product warranty costs and the effect of estimated sales incentives. Net realizable value for off-lease and other vehicles is current auction sales proceeds less disposal and warranty costs. Productive material, supplies, work in process and service parts are reviewed to determine if inventory quantities are in excess of forecasted usage or if they have become obsolete.

GENERAL MOTORS COMPANY AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

Equipment on Operating Leases Equipment on operating leases, net consists of vehicle leases to retail customers with lease terms of two to five years and vehicle sales to rental car companies that are expected to be repurchased in an average of seven months. We are exposed to changes in the residual values of these assets. The residual values represent estimates of the values of the leased vehicles at the end of the lease agreements and are determined based on forecasted auction proceeds when there is a reliable basis to make such a determination. Realization of the residual values is dependent on the future ability to market the vehicles under prevailing market conditions. The estimate of the residual value is evaluated over the life of the arrangement and adjustments may be made to the extent the expected value of the vehicle changes. Adjustments may be in the form of revisions to the depreciation rate or recognition of an impairment charge. A lease vehicle asset group is determined to be impaired if an impairment indicator exists and the expected future cash flows, which include estimated residual values, are lower than the carrying amount of the vehicle asset group. If the carrying amount is considered impaired an impairment charge is recorded for the amount by which the carrying amount exceeds fair value of the vehicle asset group. Fair value is determined primarily using the anticipated cash flows, including estimated residual values. In our automotive operations when a vehicle that is accounted for as a lease is returned the asset is reclassified from Equipment on operating leases, net to Inventories at the lower of cost or net realizable value. Upon disposition, proceeds are recorded in Automotive net sales and revenue and costs are recorded in Automotive and other cost of sales. In our automotive finance operations when a leased vehicle is returned or repossessed the asset is recorded in Other assets at the lower of amortized cost or net realizable value. Upon disposition a gain or loss is recorded in GM Financial interest, operating and other expenses for any difference between the net book value of the leased asset and the proceeds from the disposition of the asset.

Equity Investments When events and circumstances warrant, equity investments accounted for under the equity method of accounting are evaluated for impairment. An impairment charge is recorded whenever a decline in value of an equity investment below its carrying amount is determined to be other-than-temporary. Impairment charges related to equity method investments are recorded in Equity income. Equity investments that are not accounted for under the equity method of accounting are measured at fair value with changes in fair value recorded in Interest income and other non-operating income, net.

Property, net Property, plant and equipment, including internal use software, is recorded at cost. Major improvements that extend the useful life or add functionality are capitalized. The gross amount of assets under finance leases is included in property, plant and equipment. Expenditures for repairs and maintenance are charged to expense as incurred. We depreciate depreciable property using the straight-line method. Leasehold improvements are amortized over the period of lease or the life of the asset, whichever is shorter. The amortization of the assets under finance leases is included in depreciation expense. Upon retirement or disposition of property, plant and equipment, the cost and related accumulated depreciation are eliminated and any resulting gain or loss is recorded in earnings. Impairment charges related to property are recorded in Automotive and other cost of sales, Automotive and other selling, general and administrative expense or GM Financial interest, operating and other expenses.

Special Tools Special tools represent product-specific propulsion and non-propulsion related tools, dies, molds and other items used in the vehicle manufacturing process. Expenditures for special tools are recorded at cost and are capitalized. We amortize special tools over their estimated useful lives using the straight-line method or an accelerated amortization method based on their historical and estimated production volume. Impairment charges related to special tools are recorded in Automotive and other cost of sales.

Goodwill Goodwill is not amortized but rather tested for impairment annually on October 1 and when events warrant such a review. The impairment test entails an assessment of qualitative factors to determine whether it is more likely than not that an impairment exists. If it is more likely than not that an impairment exists, then a quantitative impairment test is performed. Impairment exists when the carrying amount of a reporting unit exceeds its fair value.

Intangible Assets, net Intangible assets, excluding goodwill, primarily include brand names, technology and intellectual property, customer relationships and dealer networks. Intangible assets are amortized on a straight-line or an accelerated method of amortization over their estimated useful lives. An accelerated amortization method reflecting the pattern in which the asset will be consumed is utilized if that pattern can be reliably determined. We consider the period of expected cash flows and underlying data used to measure the fair value of the intangible assets when selecting a useful life. Amortization of developed technology and intellectual property is recorded in Automotive and other cost of sales. Amortization of brand names, customer relationships and our dealer networks is recorded in Automotive and other selling, general and administrative expense or GM Financial interest, operating and other expenses. Impairment charges, if any, related to intangible assets are recorded in Automotive and other selling, general and administrative expense or Automotive and other cost of sales.

GENERAL MOTORS COMPANY AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

Valuation of Long-Lived Assets The carrying amount of long-lived assets and finite-lived intangible assets to be held and used in the business is evaluated for impairment when events and circumstances warrant. If the carrying amount of a long-lived asset group is considered impaired, a loss is recorded based on the amount by which the carrying amount exceeds fair value. Product-specific long-lived asset groups and non-product specific long-lived assets are separately tested for impairment on an asset group basis. Fair value is determined using either the market or sales comparison approach, cost approach or anticipated cash flows discounted at a rate commensurate with the risk involved. Long-lived assets to be disposed of other than by sale are considered held for use until disposition.

Pension and OPEB Plans

Attribution, Methods and Assumptions The cost of benefits provided by defined benefit pension plans is recorded in the period employees provide service. The cost of pension plan amendments that provide for benefits already earned by plan participants is amortized over the expected period of benefit which may be the duration of the applicable collective bargaining agreement specific to the plan, the expected future working lifetime or the life expectancy of the plan participants.

The cost of medical, dental, legal service and life insurance benefits provided through postretirement benefit plans is recorded in the period employees provide service. The cost of postretirement plan amendments that provide for benefits already earned by plan participants is amortized over the expected period of benefit which may be the average period to full eligibility or the average life expectancy of the plan participants.

An expected return on plan asset methodology is utilized to calculate future pension expense for certain significant funded benefit plans. A market-related value of plan assets methodology is also utilized that averages gains and losses on the plan assets over a period of years to determine future pension expense. The methodology recognizes 60% of the difference between the fair value of assets and the expected calculated value in the first year and 10% of that difference over each of the next four years.

The discount rate assumption is established for each of the retirement-related benefit plans at their respective measurement dates. In the U.S. we use a cash flow matching approach that uses projected cash flows matched to spot rates along a high-quality corporate bond yield curve to determine the present value of cash flows to calculate a single equivalent discount rate. We apply individual annual yield curve rates to determine the service cost and interest cost for our pension and OPEB plans to more specifically link the cash flows related to service cost and interest cost to bonds maturing in their year of payment.

The benefit obligation for pension plans in Canada, the U.K. and Germany represents 93% of the non-U.S. pension benefit obligation at December 31, 2020. The discount rates for plans in Canada, the U.K. and Germany are determined using a cash flow matching approach like the U.S.

Plan Asset Valuation Due to the lack of timely available market information for certain investments in the asset classes described below as well as the inherent uncertainty of valuation, reported fair values may differ from fair values that would have been used had timely available market information been available.

Common and Preferred Stock Common and preferred stock for which market prices are readily available at the measurement date are valued at the last reported sale price or official closing price on the primary market or exchange on which they are actively traded and are classified in Level 1. Such equity securities for which the market is not considered to be active are valued via the use of observable inputs, which may include the use of adjusted market prices last available, bids or last available sales prices and/or other observable inputs and are classified in Level 2. Common and preferred stock classified in Level 3 are privately issued securities or other issues that are valued via the use of valuation models using significant unobservable inputs that generally consider aged (stale) pricing, earnings multiples, discounted cash flows and/or other qualitative and quantitative factors.

Debt Securities Valuations for debt securities are based on quotations received from independent pricing services or from dealers who make markets in such securities. Debt securities priced via pricing services that utilize matrix pricing which considers readily observable inputs such as the yield or price of bonds of comparable quality, coupon, maturity and type as well as dealer supplied prices, are classified in Level 2. Debt securities that are typically priced by dealers and pricing services via the use of proprietary pricing models which incorporate significant unobservable inputs are classified in Level 3. These inputs

GENERAL MOTORS COMPANY AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

primarily consist of yield and credit spread assumptions, discount rates, prepayment curves, default assumptions and recovery rates.

Investment Funds, Private Equity and Debt Investments and Real Estate Investments Investment funds, private equity and debt investments and real estate investments are valued based on the Net Asset Value (NAV) per Share (or its equivalent) as a practical expedient to estimate fair value due to the absence of readily available market prices.

NAV's are provided by the respective investment sponsors or investment advisers and are subsequently reviewed and approved by management. In the event management concludes a reported NAV does not reflect fair value or is not determined as of the financial reporting measurement date, we will consider whether and when deemed necessary to make an adjustment at the balance sheet date. In determining whether an adjustment to the external valuation is required, we will review material factors that could affect the valuation, such as changes in the composition or performance of the underlying investments or comparable investments, overall market conditions, expected sale prices for private investments which are probable of being sold in the short-term and other economic factors that may possibly have a favorable or unfavorable effect on the reported external valuation.

Stock Incentive Plans Our stock incentive plans include RSUs, Restricted Stock Awards (RSAs), PSUs, stock options and awards that may be settled in our stock, the stock of our subsidiaries or in cash. We measure and record compensation expense based on the fair value of GM or Cruise's common stock on the date of grant for RSUs, RSAs and PSUs and the grant date fair value, determined utilizing a lattice model or the Black-Scholes formula, for stock options and PSUs. We record compensation cost for service-based RSUs, RSAs, PSUs and service-based stock options on a straight-line basis over the entire vesting period, or for retirement eligible employees over the requisite service period. RSUs granted in stock of Cruise vest upon satisfaction of both a service condition and a liquidity condition, defined as a change in control transaction or the consummation of an initial public offering. Compensation costs for RSUs granted in stock of Cruise will be recorded when the liquidity condition is met. Compensation cost for awards that do not have an established accounting grant date, but for which the service inception date has been established, or are settled in cash is based on the fair value of GM or Cruise's common stock at the end of each reporting period. We use the graded vesting method to record compensation cost for stock options with market conditions over the lesser of the vesting period or the time period an employee becomes eligible to retain the award at retirement.

Product Warranty and Recall Campaigns The estimated costs related to product warranties are accrued at the time products are sold and are charged to Automotive and other cost of sales. These estimates are established using historical information on the nature, frequency and average cost of claims of each vehicle line or each model year of the vehicle line and assumptions about future activity and events. Revisions are made when necessary and are based on changes in these factors.

The estimated costs related to recall campaigns are accrued when probable and estimable, which is generally at the time of vehicle sale. In GMNA, we estimate the costs related to recall campaigns by applying a paid loss approach that considers the number of historical recall campaigns and the estimated cost for each recall campaign. The estimated costs associated with recall campaigns in other geographical regions are determined using the estimated costs of repairs and the estimated number of vehicles to be repaired. Costs associated with recall campaigns are charged to Automotive and other cost of sales. Revisions are made when necessary based on changes in these factors.

Income Taxes The liability method is used in accounting for income taxes. Deferred tax assets and liabilities are recorded for temporary differences between the tax basis of assets and liabilities and their reported amounts in the consolidated financial statements using the statutory tax rates in effect for the year in which the differences are expected to reverse. The effect on deferred tax assets and liabilities of a change in tax laws or rates is recorded in the results of operations in the period that includes the enactment date under the law.

We establish valuation allowances for deferred tax assets based on a more likely than not standard. Deferred income tax assets are evaluated quarterly to determine if valuation allowances are required or should be adjusted. The ability to realize deferred tax assets depends on the ability to generate sufficient taxable income within the carryback or carryforward periods provided for in the tax law for each applicable tax jurisdiction. The assessment regarding whether a valuation allowance is required or should be adjusted also considers all available positive and negative evidence factors. It is difficult to conclude a valuation allowance is not required when there is significant objective and verifiable negative evidence, such as cumulative losses in recent years. We utilize a rolling three years of actual and current year results as the primary measure of cumulative losses in recent years.

GENERAL MOTORS COMPANY AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

Income tax expense (benefit) for the year is allocated between continuing operations and other categories of income such as Other comprehensive income (loss). In periods in which there is a pre-tax loss from continuing operations and pre-tax income in another income category, the tax benefit allocated to continuing operations is determined by taking into account the pre-tax income of other categories. We record Global Intangible Low Tax Income (GILTI) as a current period expense when incurred.

We record uncertain tax positions on the basis of a two-step process whereby we determine whether it is more likely than not that the tax positions will be sustained based on the technical merits of the position, and for those tax positions that meet the more likely than not criteria, we recognize the largest amount of tax benefit that is greater than 50% likely to be realized upon ultimate settlement with the related tax authority. We record interest and penalties on uncertain tax positions in Income tax expense (benefit).

Foreign Currency Transactions and Translation The assets and liabilities of foreign subsidiaries that use the local currency as their functional currency are translated to U.S. Dollars based on the current exchange rate prevailing at each balance sheet date and any resulting translation adjustments are included in Accumulated other comprehensive loss. The assets and liabilities of foreign subsidiaries whose local currency is not their functional currency are remeasured from their local currency to their functional currency and then translated to U.S. Dollars. Revenues and expenses are translated into U.S. Dollars using the average exchange rates prevailing for each period presented. The financial statements of any foreign subsidiary that has been identified as having a highly inflationary economy are remeasured as if the functional currency were the U.S. Dollar.

Gains and losses arising from foreign currency transactions and the effects of remeasurements discussed in the preceding paragraph are recorded in Automotive and other cost of sales and GM Financial interest, operating and other expenses unless related to Automotive debt, which are recorded in Interest income and other non-operating income, net. Foreign currency transaction and remeasurement losses were \$203 million, gains of \$85 million and losses of \$168 million in the years ended December 31, 2020, 2019 and 2018.

Derivative Financial Instruments Derivative financial instruments are recognized as either assets or liabilities at fair value. The accounting for changes in the fair value of each derivative financial instrument depends on whether it has been designated and qualifies as an accounting hedge, as well as the type of hedging relationship identified. Derivative instruments are not used for trading or speculative purposes.

Automotive We utilize options, swaps and forward contracts to manage foreign currency and commodity price risk. The change in fair value of option and forward contracts not designated as hedges is recorded in Interest income and other non-operating income, net. Cash flows for all derivative financial instruments are classified in cash flows from operating activities.

We estimate the fair value of the PSA warrants using a Black-Scholes formula. The significant inputs to the model include the PSA stock price and the estimated dividend yield. We are entitled to receive any dividends declared by PSA through the conversion date upon exercise of the warrants. Gains or losses as a result of the change in the fair value of the PSA warrants are recorded in Interest income and other non-operating income, net.

Automotive Financing - GM Financial GM Financial utilizes interest rate derivative instruments to manage interest rate risk and foreign currency derivative instruments to manage foreign currency risk. The change in fair value of the derivative instruments not designated as hedges is recorded in GM Financial interest, operating and other expenses. Cash flows for all derivative financial instruments are classified in cash flows from operating activities.

Certain interest rate and foreign currency swap agreements have been designated as fair value hedges. The risk being hedged is the risk of changes in the fair value of the hedged debt attributable to changes in the benchmark interest rate or the risk of changes in fair value attributable to changes in foreign currency exchange rates. If the swap has been designated as a fair value hedge, the changes in the fair value of the hedged item are recorded in GM Financial interest, operating and other expenses. The change in fair value of the related hedge is also recorded in GM Financial interest, operating and other expenses.

Certain interest rate swap and foreign currency swap agreements have been designated as cash flow hedges. The risk being hedged is the interest rate and foreign currency risk related to forecasted transactions. If the contract has been designated as a cash flow hedge, the change in the fair value of the cash flow hedge is deferred in Accumulated other comprehensive loss and is recognized in GM Financial interest, operating and other expenses along with the earnings effect of the hedged item when the hedged item affects earnings. Changes in the fair value of amounts excluded from the assessment of effectiveness are recorded currently in earnings and are presented in the same income statement line as the earnings effect of the hedged item.

GENERAL MOTORS COMPANY AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

Recently Adopted Accounting Standards Effective January 1, 2020, we adopted ASU 2016-13, which requires entities to use a new impairment model based on current expected credit losses (CECL) rather than incurred losses. Estimated credit losses under CECL consider relevant information about past events, current conditions and reasonable and supportable forecasts that affect the collectability of financial assets, resulting in recognition of lifetime expected credit losses at initial recognition of the related asset. We adopted ASU 2016-13 on a modified retrospective basis by recognizing an after-tax cumulative-effect adjustment to the opening balance of Retained earnings of \$660 million, inclusive of \$643 million related to GM Financial. The application of ASU 2016-13 increased our allowance for loan losses related to GM Financial receivables, net by \$801 million and had an insignificant impact to our allowance for credit losses for Accounts and notes receivable and no adoption impact to Marketable debt securities on our consolidated balance sheets.

Effective July 1, 2020, we adopted ASU 2020-04, “Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting” (ASU 2020-04), which provides optional expedients and exceptions for applying U.S. GAAP if certain criteria are met to contracts, hedging relationships and other transactions that reference LIBOR or another reference rate expected to be discontinued, on a prospective basis. We do not believe the discontinuance of LIBOR will be a significant event for our Automotive arrangements. A substantial portion of GM Financial’s indebtedness bears interest at variable interest rates, primarily based on USD-LIBOR. The adoption of, and future elections under, ASU 2020-04 are not expected to have a material impact on our consolidated financial statements as the standard will ease, if warranted, the requirements for accounting for the future effects of the rate reform. We continue to monitor the impact the discontinuance of LIBOR or another reference rate will have on GM Financial's contracts, hedging relationships and other transactions.

Note 3. Revenue

The following table disaggregates our revenue by major source for revenue generating segments:

	Year Ended December 31, 2020							
	GMNA	GMI	Corporate	Total Automotive	Cruise	GM Financial	Eliminations/ Reclassifications	Total
Vehicle, parts and accessories	\$ 92,749	\$10,593	\$ 1	\$ 103,343	\$ —	\$ —	\$ —	\$103,343
Used vehicles	875	115	20	1,010	—	—	—	1,010
Services and other	3,109	878	329	4,316	103	—	(99)	4,320
Automotive net sales and revenue	96,733	11,586	350	108,669	103	—	(99)	108,673
Leased vehicle income	—	—	—	—	—	9,530	—	9,530
Finance charge income	—	—	—	—	—	3,996	(1)	3,995
Other income	—	—	—	—	—	305	(18)	287
GM Financial net sales and revenue	—	—	—	—	—	13,831	(19)	13,812
Net sales and revenue	<u>\$ 96,733</u>	<u>\$11,586</u>	<u>\$ 350</u>	<u>\$ 108,669</u>	<u>\$ 103</u>	<u>\$ 13,831</u>	<u>\$ (118)</u>	<u>\$122,485</u>

	Year Ended December 31, 2019							
	GMNA	GMI	Corporate	Total Automotive	Cruise	GM Financial	Eliminations/ Reclassifications	Total
Vehicle, parts and accessories	\$101,346	\$14,931	\$ —	\$ 116,277	\$ —	\$ —	\$ —	\$116,277
Used vehicles	1,896	123	—	2,019	—	—	—	2,019
Services and other	3,124	1,057	220	4,401	100	—	(100)	4,401
Automotive net sales and revenue	106,366	16,111	220	122,697	100	—	(100)	122,697
Leased vehicle income	—	—	—	—	—	10,032	—	10,032
Finance charge income	—	—	—	—	—	4,071	(7)	4,064
Other income	—	—	—	—	—	451	(7)	444
GM Financial net sales and revenue	—	—	—	—	—	14,554	(14)	14,540
Net sales and revenue	<u>\$106,366</u>	<u>\$16,111</u>	<u>\$ 220</u>	<u>\$ 122,697</u>	<u>\$ 100</u>	<u>\$ 14,554</u>	<u>\$ (114)</u>	<u>\$137,237</u>

GENERAL MOTORS COMPANY AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

Year Ended December 31, 2018

	GMNA	GMI	Corporate	Total Automotive	GM Financial	Eliminations	Total
Vehicle, parts and accessories	\$ 107,217	\$ 17,980	\$ 20	\$ 125,217	\$ —	\$ (62)	\$ 125,155
Used vehicles	3,215	175	—	3,390	—	(36)	3,354
Services and other	3,360	993	183	4,536	—	—	4,536
Automotive net sales and revenue	113,792	19,148	203	133,143	—	(98)	133,045
Leased vehicle income	—	—	—	—	9,963	—	9,963
Finance charge income	—	—	—	—	3,629	(8)	3,621
Other income	—	—	—	—	424	(4)	420
GM Financial net sales and revenue	—	—	—	—	14,016	(12)	14,004
Net sales and revenue	<u>\$ 113,792</u>	<u>\$ 19,148</u>	<u>\$ 203</u>	<u>\$ 133,143</u>	<u>\$ 14,016</u>	<u>\$ (110)</u>	<u>\$ 147,049</u>

Revenue is measured as the amount of consideration we expect to receive in exchange for transferring goods or providing services. Adjustments to sales incentives for previously recognized sales were insignificant during the years ended December 31, 2020, 2019 and 2018.

Contract liabilities in our Automotive segments primarily consist of maintenance, extended warranty and other service contracts of \$2.4 billion and \$2.2 billion at December 31, 2020 and 2019, which are included in Accrued liabilities and Other liabilities. We recognized revenue of \$1.1 billion and \$1.5 billion related to contract liabilities during the years ended December 31, 2020 and 2019. We expect to recognize revenue of \$1.2 billion, \$503 million and \$759 million in the years ending December 31, 2021, 2022 and thereafter related to contract liabilities at December 31, 2020.

GENERAL MOTORS COMPANY AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

Note 4. Marketable and Other Securities

The following table summarizes the fair value of cash equivalents and marketable debt securities, which approximates cost:

	<u>Fair Value Level</u>	<u>December 31, 2020</u>	<u>December 31, 2019</u>
Cash and cash equivalents			
Cash and time deposits(a)		\$ 8,010	\$ 6,828
Available-for-sale debt securities			
U.S. government and agencies	2	1,370	1,484
Corporate debt	2	3,476	5,863
Sovereign debt	2	2,051	2,123
Total available-for-sale debt securities – cash equivalents		<u>6,897</u>	<u>9,470</u>
Money market funds	1	5,085	2,771
Total cash and cash equivalents(b)		<u>\$ 19,992</u>	<u>\$ 19,069</u>
Marketable debt securities			
U.S. government and agencies	2	\$ 1,771	\$ 226
Corporate debt	2	3,630	2,932
Mortgage and asset-backed	2	632	681
Sovereign debt	2	3,013	335
Total available-for-sale debt securities – marketable securities(c)		<u>\$ 9,046</u>	<u>\$ 4,174</u>
Restricted cash			
Cash and cash equivalents		\$ 269	\$ 292
Money market funds	1	2,856	3,582
Total restricted cash		<u>\$ 3,125</u>	<u>\$ 3,874</u>
Available-for-sale debt securities included above with contractual maturities(d)			
Due in one year or less		\$ 12,533	
Due between one and five years		<u>2,778</u>	
Total available-for-sale debt securities with contractual maturities		<u>\$ 15,311</u>	

(a) Includes \$248 million that is designated exclusively to fund capital expenditures in GM Korea Company (GM Korea) at December 31, 2019. No amount was designated exclusively to fund GM Korea capital expenditures at December 31, 2020.

(b) Includes \$761 million and \$2.3 billion in Cruise at December 31, 2020 and 2019.

(c) Includes \$943 million and \$266 million in Cruise at December 31, 2020 and 2019.

(d) Excludes mortgage- and asset-backed securities of \$632 million at December 31, 2020 as these securities are not due at a single maturity date.

Proceeds from the sale of available-for-sale debt securities sold prior to maturity were \$1.9 billion, \$4.5 billion and \$4.3 billion in the years ended December 31, 2020, 2019 and 2018. Net unrealized gains and losses on available-for-sale debt securities were insignificant in the years ended December 31, 2020, 2019 and 2018. Cumulative unrealized gains and losses on available-for-sale debt securities were insignificant at December 31, 2020 and 2019.

We liquidated our remaining shares in Lyft in the six months ended June 30, 2020. We recorded an insignificant unrealized loss in the years ended December 31, 2020 and 2019, and an unrealized gain of \$142 million in Interest income and other non-operating income, net in the year ended December 31, 2018.

GENERAL MOTORS COMPANY AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

The following table provides a reconciliation of cash, cash equivalents and restricted cash reported within the consolidated balance sheets that sum to the total of the same amounts shown in the consolidated statements of cash flows:

	December 31, 2020	December 31, 2019
Cash and cash equivalents	\$ 19,992	\$ 19,069
Restricted cash included in Other current assets	2,581	3,352
Restricted cash included in Other assets	544	522
Total	\$ 23,117	\$ 22,943

Note 5. GM Financial Receivables and Transactions

	December 31, 2020			December 31, 2019		
	Retail	Commercial(a)	Total	Retail	Commercial(a)	Total
GM Financial receivables	\$ 51,288	\$ 8,682	\$ 59,970	\$ 42,229	\$ 11,671	\$ 53,900
Less: allowance for loan losses	(1,915)	(63)	(1,978)	(866)	(78)	(944)
GM Financial receivables, net	<u>\$ 49,373</u>	<u>\$ 8,619</u>	<u>\$ 57,992</u>	<u>\$ 41,363</u>	<u>\$ 11,593</u>	<u>\$ 52,956</u>
Fair value of GM Financial receivables utilizing Level 2 inputs			\$ 8,619			\$ 11,593
Fair value of GM Financial receivables utilizing Level 3 inputs			\$ 51,645			\$ 41,973

(a) Net of dealer cash management balances of \$1.4 billion and \$1.2 billion at December 31, 2020 and 2019. Under the cash management program, subject to certain conditions, a dealer may choose to reduce the amount of interest on their floorplan line by making principal payments to GM Financial in advance.

	Years Ended December 31,		
	2020	2019	2018
Allowance for loan losses at beginning of period	\$ 944	\$ 911	\$ 942
Impact of adoption ASU 2016-13 (Note 2)	801	—	—
Provision for loan losses	881	726	642
Charge-offs	(1,169)	(1,246)	(1,199)
Recoveries	542	551	536
Effect of foreign currency	(21)	2	(10)
Allowance for loan losses at end of period	<u>\$ 1,978</u>	<u>\$ 944</u>	<u>\$ 911</u>

Retail Finance Receivables GM Financial's retail finance receivable portfolio includes loans made to consumers and businesses to finance the purchase of vehicles for personal and commercial use. A summary of the amortized cost of the retail finance receivables by FICO score or its equivalent, determined at origination, for each vintage of the retail finance receivables portfolio at December 31, 2020 is as follows:

	Year of Origination						December 31, 2020		December 31, 2019	
	2020	2019	2018	2017	2016	Prior	Total	Percent	Total	Percent
Prime – FICO score 680 and greater	\$ 18,685	\$ 7,033	\$ 4,491	\$ 1,917	\$ 555	\$ 119	\$ 32,800	64.0 %	\$ 25,400	60.1 %
Near-prime – FICO score 620 to 679	3,695	2,097	1,232	603	225	83	7,935	15.4 %	6,862	16.3 %
Sub-prime – FICO score less than 620	3,803	2,920	1,740	1,173	610	307	10,553	20.6 %	9,967	23.6 %
Retail finance receivables, net of fees	<u>\$ 26,183</u>	<u>\$ 12,050</u>	<u>\$ 7,463</u>	<u>\$ 3,693</u>	<u>\$ 1,390</u>	<u>\$ 509</u>	<u>\$ 51,288</u>	<u>100.0 %</u>	<u>\$ 42,229</u>	<u>100.0 %</u>

GENERAL MOTORS COMPANY AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

GM Financial reviews the ongoing credit quality of retail finance receivables based on customer payment activity. A retail account is considered delinquent if a substantial portion of a scheduled payment has not been received by the date the payment was contractually due. Retail finance receivables are collateralized by vehicle titles and, subject to local laws, GM Financial generally has the right to repossess the vehicle in the event the customer defaults on the payment terms of the contract. The accrual of finance charge income had been suspended on delinquent retail finance receivables with contractual amounts due of \$714 million and \$875 million at December 31, 2020 and 2019. The following table is a consolidated summary of the delinquency status of the outstanding amortized cost of retail finance receivables for each vintage of the portfolio at December 31, 2020:

	Year of Origination						December 31, 2020		December 31, 2019	
	2020	2019	2018	2017	2016	Prior	Total	Percent	Total(a)	Percent
0-to-30 days	\$25,894	\$11,591	\$ 7,131	\$ 3,454	\$ 1,249	\$ 421	\$49,740	97.0 %		
31-to-60 days	210	325	235	170	102	61	1,103	2.1 %	\$ 1,354	3.2 %
Greater-than-60 days	72	123	90	64	37	26	412	0.8 %	542	1.3 %
Finance receivables more than 30 days delinquent	282	448	325	234	139	87	1,515	2.9 %	1,896	4.5 %
In repossession	7	11	7	5	2	1	33	0.1 %	44	0.1 %
Finance receivables more than 30 days delinquent or in repossession	289	459	332	239	141	88	1,548	3.0 %	\$ 1,940	4.6 %
Retail finance receivables, net of fees	<u>\$26,183</u>	<u>\$12,050</u>	<u>\$ 7,463</u>	<u>\$ 3,693</u>	<u>\$ 1,390</u>	<u>\$ 509</u>	<u>\$51,288</u>	<u>100.0 %</u>		

(a) Represents the contractual amounts of delinquent retail finance receivables, which is not significantly different than the outstanding amortized cost for such receivables.

The outstanding amortized cost of retail finance receivables that are considered TDRs was \$2.2 billion at December 31, 2020, including \$301 million in nonaccrual loans.

Commercial Finance Receivables GM Financial's commercial finance receivables consist of dealer financings, primarily for inventory purchases. Proprietary models are used to assign a risk rating to each dealer. GM Financial performs periodic credit reviews of each dealership and adjusts the dealership's risk rating, if necessary. The commercial finance receivables on nonaccrual status were insignificant at December 31, 2020.

Prior to January 1, 2020, GM Financial estimated the allowance for loan losses based on an analysis of the experience of comparable commercial lenders. Effective January 1, 2020, GM Financial establishes the allowance for loan losses based on historical loss experience for the consolidated portfolio, in addition to forecast for industry vehicle sales. The updated risk rating categories are as follows:

Rating	Description
I	Performing accounts with strong to acceptable financial metrics with at least satisfactory capacity to meet financial commitments.
II	Performing accounts experiencing potential weakness in financial metrics and repayment prospects resulting in increased monitoring.
III	Non-Performing accounts with inadequate paying capacity for current obligations and have the distinct possibility of creating a loss if deficiencies are not corrected.
IV	Non-Performing accounts with inadequate paying capacity for current obligations and inherent weaknesses that make collection of liquidation in full highly questionable or improbable.

GENERAL MOTORS COMPANY AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

Dealers with III and IV risk ratings are subject to additional monitoring and restrictions on funding, including suspension of lines of credit and liquidation of assets. The following table summarizes the credit risk profile by dealer risk rating of commercial finance receivables at December 31, 2020:

	Year of Origination(a)							December 31, 2020	
	Revolving	2020	2019	2018	2017	2016	Prior	Total	Percent
I	\$ 6,968	\$ 510	\$ 159	\$ 63	\$ 95	\$ 43	\$ 19	\$ 7,857	90.5 %
II	491	2	18	2	3	18	34	568	6.5 %
III	203	—	8	29	2	11	—	253	2.9 %
IV	—	—	—	—	—	—	4	4	0.1 %
Commercial finance receivables, net of fees	<u>\$ 7,662</u>	<u>\$ 512</u>	<u>\$ 185</u>	<u>\$ 94</u>	<u>\$ 100</u>	<u>\$ 72</u>	<u>\$ 57</u>	<u>\$ 8,682</u>	<u>100.0 %</u>

(a) Floorplan advances comprise 97% of the total revolving balance. Dealer term loans are presented by year of origination.

Transactions with GM Financial The following table shows transactions between our Automotive segments and GM Financial. These amounts are presented in GM Financial's consolidated balance sheets and statements of income.

	December 31, 2020	December 31, 2019
Consolidated Balance Sheets(a)		
Commercial finance receivables, net due from GM consolidated dealers	\$ 398	\$ 478
Subvention receivable(b)	\$ 642	\$ 676
Commercial loan funding payable	\$ 23	\$ 74

	Years Ended December 31,		
	2020	2019	2018
Consolidated Statements of Income			
Interest subvention earned on finance receivables	\$ 679	\$ 588	\$ 554
Leased vehicle subvention earned	\$ 3,042	\$ 3,273	\$ 3,274

(a) All balance sheet amounts are eliminated upon consolidation.

(b) Our Automotive segments made cash payments to GM Financial for subvention of \$3.9 billion, \$4.1 billion, and \$3.8 billion in the years ended December 31, 2020, 2019 and 2018.

GM Financial's Board of Directors declared and paid dividends of \$800 million, \$400 million and \$375 million on its common stock in the years ended December 31, 2020, 2019 and 2018.

Note 6. Inventories

	December 31, 2020	December 31, 2019
Total productive material, supplies and work in process	\$ 5,117	\$ 4,713
Finished product, including service parts	5,118	5,685
Total inventories	<u>\$ 10,235</u>	<u>\$ 10,398</u>

Note 7. Equipment on Operating Leases

Equipment on operating leases primarily consists of leases to retail customers of GM Financial. The current portion of net equipment on operating leases is included in Other current assets.

GENERAL MOTORS COMPANY AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

	December 31, 2020	December 31, 2019
Equipment on operating leases	\$ 50,000	\$ 53,081
Less: accumulated depreciation	(10,181)	(10,989)
Equipment on operating leases, net	<u>\$ 39,819</u>	<u>\$ 42,092</u>

At December 31, 2020, the estimated residual value of our leased assets at the end of the lease term was \$29.2 billion.

Depreciation expense related to Equipment on operating leases, net was \$7.2 billion, \$7.3 billion and \$7.5 billion in the years ended December 31, 2020, 2019 and 2018.

The following table summarizes lease payments due to GM Financial on leases to retail customers:

	Years Ending December 31,						
	2021	2022	2023	2024	2025	Thereafter	Total
Lease receipts under operating leases	\$ 6,142	\$ 3,783	\$ 1,441	\$ 112	\$ 2	\$ —	\$11,480

Note 8. Equity in Net Assets of Nonconsolidated Affiliates

Nonconsolidated affiliates are entities in which we maintain an equity ownership interest and for which we use the equity method of accounting due to our ability to exert significant influence over decisions relating to their operating and financial affairs. Revenue and expenses of our joint ventures are not consolidated into our financial statements; rather, our proportionate share of the earnings of each joint venture is reflected as Equity income.

	Years Ended December 31,		
	2020	2019	2018
Automotive China equity income	\$ 512	\$ 1,132	\$ 1,981
Other joint ventures equity income	162	136	182
Total Equity income	<u>\$ 674</u>	<u>\$ 1,268</u>	<u>\$ 2,163</u>

Investments in Nonconsolidated Affiliates

	December 31, 2020	December 31, 2019
Automotive China carrying amount	\$ 6,599	\$ 7,044
Other investments carrying amount	1,807	1,518
Total equity in net assets of nonconsolidated affiliates	<u>\$ 8,406</u>	<u>\$ 8,562</u>

The carrying amount of our investments in certain joint ventures exceeded our share of the underlying net assets by \$4.2 billion at December 31, 2020 and 2019 primarily due to goodwill from the application of fresh-start reporting and the purchase of additional interests in nonconsolidated affiliates.

GENERAL MOTORS COMPANY AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

The following table summarizes our direct ownership interests in our China JVs:

	<u>December 31, 2020</u>	<u>December 31, 2019</u>
Automotive China JVs		
SAIC General Motors Corp., Ltd. (SGM)	50 %	50 %
Pan Asia Technical Automotive Center Co., Ltd.	50 %	50 %
SAIC General Motors Sales Co., Ltd.	49 %	49 %
SAIC GM Wuling Automobile Co., Ltd. (SGMW)	44 %	44 %
Shanghai OnStar Telematics Co., Ltd. (Shanghai OnStar)	40 %	40 %
SAIC GM (Shenyang) Norsom Motors Co., Ltd. (SGM Norsom)	25 %	25 %
SAIC GM Dong Yue Motors Co., Ltd. (SGM DY)	25 %	25 %
SAIC GM Dong Yue Powertrain Co., Ltd. (SGM DYPT)	25 %	25 %
Other joint ventures		
SAIC-GMAC Automotive Finance Company Limited (SAIC-GMAC)	35 %	35 %
SAIC-GMF Leasing Co., Ltd.	35 %	35 %

SGM is a joint venture we established with Shanghai Automotive Industry Corporation (SAIC) (50%). SGM has interests in three other joint ventures in China: SGM Norsom, SGM DY and SGM DYPT. These three joint ventures are jointly held by SGM (50%), SAIC (25%) and ourselves. These four joint ventures are engaged in the production, import and sale of a range of products under the Buick, Chevrolet and Cadillac brands. SGM also has interests in Shanghai OnStar (20%), SAIC-GMAC (20%) and SAIC-GMF Leasing Co., Ltd. (20%). Shanghai Automotive Group Finance Company Ltd., a subsidiary of SAIC, owns 45% of SAIC-GMAC. SAIC Financial Holdings Company, a subsidiary of SAIC, owns 45% of SAIC-GMF Leasing Co., Ltd.

Summarized Financial Data of Nonconsolidated Affiliates

	<u>December 31, 2020</u>			<u>December 31, 2019</u>		
	<u>Automotive China JVs</u>	<u>Others</u>	<u>Total</u>	<u>Automotive China JVs</u>	<u>Others</u>	<u>Total</u>
Summarized Balance Sheet Data						
Current assets	\$ 17,604	\$ 16,844	\$ 34,448	\$ 14,035	\$ 13,319	\$ 27,354
Non-current assets	14,875	8,634	23,509	14,484	6,680	21,164
Total assets	<u>\$ 32,479</u>	<u>\$ 25,478</u>	<u>\$ 57,957</u>	<u>\$ 28,519</u>	<u>\$ 19,999</u>	<u>\$ 48,518</u>
Current liabilities	\$ 25,633	\$ 14,808	\$ 40,441	\$ 21,256	\$ 11,588	\$ 32,844
Non-current liabilities	1,163	6,654	7,817	968	5,017	5,985
Total liabilities	<u>\$ 26,796</u>	<u>\$ 21,462</u>	<u>\$ 48,258</u>	<u>\$ 22,224</u>	<u>\$ 16,605</u>	<u>\$ 38,829</u>
Noncontrolling interests	\$ 824	\$ 1	\$ 825	\$ 847	\$ 1	\$ 848

	<u>Years Ended December 31,</u>		
	<u>2020</u>	<u>2019</u>	<u>2018</u>
Summarized Operating Data			
Automotive China JVs' net sales	\$ 38,736	\$ 39,123	\$ 50,316
Others' net sales	1,850	1,815	1,721
Total net sales	<u>\$ 40,586</u>	<u>\$ 40,938</u>	<u>\$ 52,037</u>
Automotive China JVs' net income	\$ 1,239	\$ 2,258	\$ 3,992
Others' net income	436	477	536
Total net income	<u>\$ 1,675</u>	<u>\$ 2,735</u>	<u>\$ 4,528</u>

GENERAL MOTORS COMPANY AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

Transactions with Nonconsolidated Affiliates Our nonconsolidated affiliates are involved in various aspects of the development, production and marketing of trucks, crossovers, cars and automobile parts. We enter into transactions with certain nonconsolidated affiliates to purchase and sell component parts and vehicles. The following tables summarize transactions with and balances related to our nonconsolidated affiliates:

	Years Ended December 31,		
	2020	2019	2018
Automotive sales and revenue	\$ 235	\$ 199	\$ 406
Automotive purchases, net	\$ 165	\$ 1,065	\$ 1,155
Dividends received	\$ 1,198	\$ 1,852	\$ 2,022
Operating cash flows	\$ 1,473	\$ 913	\$ 657
		<u>December 31, 2020</u>	<u>December 31, 2019</u>
Accounts and notes receivable, net		\$ 954	\$ 1,007
Accounts payable		\$ 494	\$ 369
Undistributed earnings		\$ 1,594	\$ 2,118

Note 9. Property

	Estimated Useful Lives in Years	December 31, 2020	December 31, 2019
	Land		\$ 1,339
Buildings and improvements	5-40	9,671	9,705
Machinery and equipment	3-27	30,013	29,814
Special tools	1-13	20,851	23,586
Construction in progress		3,581	3,042
Total property		65,455	67,449
Less: accumulated depreciation		(27,823)	(28,699)
Total property, net		<u>\$ 37,632</u>	<u>\$ 38,750</u>

The amount of capitalized software included in Property, net was \$1.3 billion at December 31, 2020 and 2019. The amount of interest capitalized and excluded from Automotive interest expense related to Property, net was insignificant in the years ended December 31, 2020, 2019 and 2018.

	Years Ended December 31,		
	2020	2019	2018
Depreciation and amortization expense	\$ 5,354	\$ 6,541	\$ 5,347
Impairment charges	\$ 86	\$ 7	\$ 466
Capitalized software amortization expense(a)	\$ 457	\$ 452	\$ 424

(a) Included in depreciation and amortization expense.

Note 10. Goodwill and Intangible Assets

Goodwill of \$1.9 billion consisted of \$1.3 billion and \$1.4 billion recorded in GM Financial, primarily related to its North America reporting unit, and \$567 million and \$504 million included in Cruise at December 31, 2020 and 2019. The COVID-19 pandemic has caused material disruption to businesses, resulting in an economic slowdown. The economic and social uncertainty resulting from the COVID-19 pandemic indicated that it was more likely than not that a goodwill impairment existed at March 31, 2020 for GM Financial's North America reporting unit. Therefore, at March 31, 2020, we performed an event-driven goodwill impairment test for GM Financial's North America reporting unit and determined no goodwill impairment existed.

GENERAL MOTORS COMPANY AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

The fair value of GM Financial's North America reporting unit at March 31, 2020 was determined based on valuation techniques using the best available information, primarily discounted cash flow projections. We make significant assumptions and estimates about the extent and timing of future cash flows. There can be no assurance that anticipated financial results will be achieved. Under multiple scenarios, including fully weighting the downside cash flow scenario, the estimated fair value of GM Financial's North America reporting unit at March 31, 2020 exceeded its carrying amount. Since our goodwill impairment analysis at March 31, 2020, we performed a qualitative assessment of goodwill impairment by evaluating our economic performance, outlook and other events and circumstances and noted no indicators that would warrant further quantitative testing of goodwill impairment.

	December 31, 2020			December 31, 2019		
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Technology and intellectual property	\$ 762	\$ 542	\$ 220	\$ 734	\$ 533	\$ 201
Brands	4,300	1,444	2,856	4,298	1,285	3,013
Dealer network, customer relationships and other	981	737	244	966	702	264
Total intangible assets	<u>\$ 6,043</u>	<u>\$ 2,723</u>	<u>\$ 3,320</u>	<u>\$ 5,998</u>	<u>\$ 2,520</u>	<u>\$ 3,478</u>

Our amortization expense related to intangible assets was \$144 million, \$202 million, and \$247 million in the years ended December 31, 2020, 2019 and 2018.

Amortization expense related to intangible assets is estimated to be approximately \$160 million in each of the next five years.

Note 11. Variable Interest Entities

Consolidated VIEs

Automotive Financing - GM Financial

GM Financial uses special purpose entities (SPEs) that are considered VIEs to issue variable funding notes to third party bank-sponsored warehouse facilities or asset-backed securities to investors in securitization transactions. The debt issued by these VIEs is backed by finance receivables and leasing-related assets transferred to the VIEs (Securitized Assets). GM Financial determined that it is the primary beneficiary of the SPEs because the servicing responsibilities for the Securitized Assets give GM Financial the power to direct the activities that most significantly impact the performance of the VIEs and the variable interests in the VIEs give GM Financial the obligation to absorb losses and the right to receive residual returns that could potentially be significant. The assets of the VIEs serve as the sole source of repayment for the debt issued by these entities. Investors in the notes issued by the VIEs do not have recourse to GM Financial or its other assets, with the exception of customary representation and warranty repurchase provisions and indemnities that GM Financial provides as the servicer. GM Financial is not required to provide additional financial support to these SPEs. While these subsidiaries are included in GM Financial's consolidated financial statements, they are separate legal entities and their assets are legally owned by them and are not available to GM Financial's creditors.

The following table summarizes the assets and liabilities related to GM Financial's consolidated VIEs:

	December 31, 2020	December 31, 2019
Restricted cash – current	\$ 2,190	\$ 2,202
Restricted cash – non-current	\$ 449	\$ 441
GM Financial receivables, net of fees – current	\$ 17,211	\$ 19,081
GM Financial receivables, net of fees – non-current	\$ 15,107	\$ 15,921
GM Financial equipment on operating leases, net	\$ 16,322	\$ 14,464
GM Financial short-term debt and current portion of long-term debt	\$ 20,450	\$ 23,952
GM Financial long-term debt	\$ 18,974	\$ 15,819

GM Financial recognizes finance charge, leased vehicle and fee income on the Securitized Assets and interest expense on the secured debt issued in a securitization transaction and records a provision for loan losses to recognize loan losses expected over the remaining life of the finance receivables.

GENERAL MOTORS COMPANY AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

Nonconsolidated VIEs

Automotive

Nonconsolidated VIEs principally include automotive related operating entities to which we provided financial support to ensure that our supply needs for production are met or are not disrupted. Our variable interests in these nonconsolidated VIEs include equity investments, accounts and loans receivable, committed financial support and other off-balance sheet arrangements. The carrying amounts of assets and liabilities related to our nonconsolidated VIEs were insignificant at December 31, 2020 and 2019. Our maximum exposure to loss as a result of our involvement with these VIEs was \$1.2 billion, inclusive of \$776 million in committed capital contributions to Ultium Cells LLC at December 31, 2020, and an insignificant amount at December 31, 2019. We currently lack the power through voting or similar rights to direct the activities of these entities that most significantly affect their economic performance.

Note 12. Accrued and Other Liabilities

	<u>December 31, 2020</u>	<u>December 31, 2019</u>
Accrued liabilities		
Dealer and customer allowances, claims and discounts	\$ 7,300	\$ 10,402
Deferred revenue	3,132	3,234
Product warranty and related liabilities	3,048	2,987
Payrolls and employee benefits excluding postemployment benefits	1,864	1,969
Other	7,725	7,895
Total accrued liabilities	<u>\$ 23,069</u>	<u>\$ 26,487</u>
Other liabilities		
Deferred revenue	\$ 2,715	\$ 2,962
Product warranty and related liabilities	5,193	4,811
Operating lease liabilities	969	1,010
Employee benefits excluding postemployment benefits	822	704
Postemployment benefits including facility idling reserves	739	633
Other	3,009	3,026
Total other liabilities	<u>\$ 13,447</u>	<u>\$ 13,146</u>

	<u>Years Ended December 31,</u>		
	<u>2020</u>	<u>2019</u>	<u>2018</u>
Product Warranty and Related Liabilities			
Warranty balance at beginning of period	\$ 7,798	\$ 7,590	\$ 8,332
Warranties issued and assumed in period – recall campaigns	1,628	745	665
Warranties issued and assumed in period – product warranty	1,773	2,001	2,143
Payments	(2,986)	(3,012)	(2,903)
Adjustments to pre-existing warranties	41	455	(464)
Effect of foreign currency and other	(12)	19	(183)
Warranty balance at end of period	<u>\$ 8,242</u>	<u>\$ 7,798</u>	<u>\$ 7,590</u>

In the three months ended December 31, 2020, we recorded an accrual of \$1.1 billion, which represents our current estimate of the expected costs of complying with the recall related to the Takata passenger-side inflators in certain GMT900 vehicles, which are full-size pickup trucks and SUVs. This accrual is reflected in Warranties issued and assumed in period – recall campaigns in the table above. Refer to Note 16 for additional information on Takata matters.

GENERAL MOTORS COMPANY AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

Note 13. Debt

Automotive The following table presents debt in our automotive operations:

	December 31, 2020		December 31, 2019	
	Carrying Amount	Fair Value	Carrying Amount	Fair Value
Secured debt	\$ 303	\$ 332	\$ 167	\$ 165
Unsecured debt	16,929	20,988	13,909	15,247
Finance lease liabilities	237	256	310	516
Total automotive debt(a)	\$ 17,469	\$ 21,576	\$ 14,386	\$ 15,928
Fair value utilizing Level 1 inputs		\$ 19,826		\$ 13,628
Fair value utilizing Level 2 inputs		\$ 1,750		\$ 2,300
Available under credit facility agreements(b)		\$ 18,222		\$ 17,285
Weighted-average interest rate on outstanding short-term debt(c)		3.8 %		4.9 %
Weighted-average interest rate on outstanding long-term debt(c)		5.6 %		5.4 %

(a) Includes net discount and debt issuance costs of \$540 million at December 31, 2020 and 2019.

(b) Excludes our 364-day, \$2.0 billion facility designated for exclusive use by GM Financial.

(c) Includes coupon rates on debt denominated in various foreign currencies and interest free loans.

Unsecured debt primarily consists of revolving credit facilities and senior notes. In March 2020, we borrowed: (1) \$3.4 billion against our three-year, \$4.0 billion facility; (2) \$2.0 billion against our three-year, \$3.0 billion facility, which reduced to \$2.0 billion in May 2020 (three-year, \$2.0 billion transformation facility); and (3) \$10.5 billion against our five-year, \$10.5 billion facility with maturity dates ranging from 2021 to 2023. We repaid all amounts drawn under the revolving credit facilities as of December 31, 2020. We did not have any borrowings against our revolving credit facilities at December 31, 2019.

In April 2020, we renewed our 364-day, \$2.0 billion facility dedicated for exclusive use by GM Financial for an additional 364-day term and extended \$3.6 billion of the three-year, \$4.0 billion facility for an additional year expiring in April 2022. The remaining portion will expire in April 2021, unless extended. As part of the extension of the three-year, \$4.0 billion facility, we agreed not to execute any share repurchases while we have any outstanding borrowings under the revolving credit facilities, except for the three-year, \$2.0 billion transformation facility. In addition, we are restricted from paying dividends on our common shares if outstanding borrowings under the revolving credit facilities exceed \$5.0 billion, with the exception of the three-year, \$2.0 billion transformation facility.

In May 2020, we issued \$4.0 billion in aggregate principal amount of senior unsecured notes with a weighted average interest rate of 6.11% and maturity dates ranging from 2023 to 2027. The notes are governed by a sixth supplemental indenture and the same base indenture that governs our existing notes, which contains terms and covenants customary to these types of securities, including a limitation on the amount of certain secured debt we may incur. The net proceeds from the issuance of these senior unsecured notes provide additional financial flexibility and will be used for general corporate purposes. In May 2020, we entered into a new unsecured 364-day, \$2.0 billion revolving credit facility as an additional source of available liquidity. In August 2020, we repaid \$500 million of our floating rate senior unsecured debt upon maturity.

GENERAL MOTORS COMPANY AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

GM Financial The following table presents debt of GM Financial:

	December 31, 2020		December 31, 2019	
	Carrying Amount	Fair Value	Carrying Amount	Fair Value
Secured debt	\$ 39,982	\$ 40,380	\$ 39,959	\$ 40,160
Unsecured debt	52,443	54,568	48,979	50,239
Total GM Financial debt	<u>\$ 92,425</u>	<u>\$ 94,948</u>	<u>\$ 88,938</u>	<u>\$ 90,399</u>
Fair value utilizing Level 2 inputs		\$ 92,922		\$ 88,481
Fair value utilizing Level 3 inputs		\$ 2,026		\$ 1,918

Secured debt consists of revolving credit facilities and securitization notes payable. Most of the secured debt was issued by VIEs and is repayable only from proceeds related to the underlying pledged assets. Refer to Note 11 for additional information on GM Financial's involvement with VIEs. GM Financial is required to hold certain funds in restricted cash accounts to provide additional collateral for borrowings under certain secured credit facilities. The weighted-average interest rate on secured debt was 1.89% at December 31, 2020. The revolving credit facilities have maturity dates ranging from 2021 to 2026 and securitization notes payable have maturity dates ranging from 2021 to 2028. At the end of the revolving period, if not renewed, the debt of revolving credit facilities will amortize over a defined period. In the year ended December 31, 2020, GM Financial renewed revolving credit facilities with total borrowing capacity of \$21.1 billion and issued \$24.6 billion in aggregate principal amount of securitization notes payable with an initial weighted average interest rate of 1.17% and maturity dates ranging from 2021 to 2028.

Unsecured debt consists of senior notes, credit facilities and other unsecured debt. Senior notes outstanding at December 31, 2020 have maturity dates ranging from 2021 to 2030 and have a weighted-average interest rate of 3.25%. In the year ended December 31, 2020, GM Financial issued \$9.2 billion in aggregate principal amount of senior notes with an initial weighted average interest rate of 2.93% and maturity dates ranging from 2023 to 2030.

In January 2021, GM Financial issued \$2.5 billion in senior notes with a weighted average interest rate of 1.69% and maturity dates ranging from 2026 to 2031. In January 2021, GM Financial issued CAD \$500 million in senior notes with an interest rate of 1.75% due in 2026.

Unsecured credit facilities and other unsecured debt have original maturities of up to four years. The weighted-average interest rate on these credit facilities and other unsecured debt was 2.47% at December 31, 2020.

	Years Ended December 31,		
	2020	2019	2018
Automotive interest expense	\$ 1,098	\$ 782	\$ 655
Automotive Financing - GM Financial interest expense	3,023	3,641	3,225
Total interest expense	<u>\$ 4,121</u>	<u>\$ 4,423</u>	<u>\$ 3,880</u>

GENERAL MOTORS COMPANY AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

The following table summarizes contractual maturities including finance leases at December 31, 2020:

	<u>Automotive</u>	<u>Automotive Financing</u>	<u>Total</u>
2021	\$ 1,276	\$ 35,742	\$ 37,018
2022	137	19,312	19,449
2023	2,593	15,267	17,860
2024	86	7,808	7,894
2025	2,578	6,609	9,187
Thereafter	11,339	7,277	18,616
	<u>\$ 18,009</u>	<u>\$ 92,015</u>	<u>\$ 110,024</u>

Compliance with Debt Covenants Several of our loan facilities, including our revolving credit facilities, require compliance with certain financial and operational covenants as well as regular reporting to lenders, including providing certain subsidiary financial statements. Certain of GM Financial's secured debt agreements also contain various covenants, including maintaining portfolio performance ratios as well as limits on deferment levels. GM Financial's unsecured debt obligations contain covenants including limitations on GM Financial's ability to incur certain liens. Failure to meet certain of these requirements may result in a covenant violation or an event of default depending on the terms of the agreement. An event of default may allow lenders to declare amounts outstanding under these agreements immediately due and payable, to enforce their interests against collateral pledged under these agreements or restrict our ability or GM Financial's ability to obtain additional borrowings. No technical defaults or covenant violations existed at December 31, 2020.

Note 14. Derivative Financial Instruments

Automotive The following table presents the notional amounts of derivative financial instruments in our automotive operations:

	<u>Fair Value Level</u>	<u>December 31, 2020</u>	<u>December 31, 2019</u>
Derivatives not designated as hedges(a)			
Foreign currency	2	\$ 2,195	\$ 5,075
Commodity	2	341	806
PSA Warrants(b)	2	49	45
Total derivative financial instruments		<u>\$ 2,585</u>	<u>\$ 5,926</u>

- (a) The fair value of these derivative instruments at December 31, 2020 and 2019 and the gains/losses included in our consolidated income statements for the years ended December 31, 2020, 2019 and 2018 were insignificant, unless otherwise noted.
- (b) The fair value of the PSA warrants located in Other assets was \$1.1 billion and \$964 million at December 31, 2020 and 2019. We recorded gains in Interest income and other non-operating income, net of \$139 million, \$154 million and \$116 million for the years ended December 31, 2020, 2019 and 2018. As a result of the merger of PSA Group and Fiat Chrysler Automobiles N.V. on January 16, 2021, our 39.7 million warrants in PSA Group will convert into 69.2 million common shares of Stellantis N.V. upon exercise. These warrants will continue to be governed by the same terms and conditions that were applicable prior to the merger.

GENERAL MOTORS COMPANY AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

GM Financial The following table presents the gross fair value amounts of GM Financial's derivative financial instruments and the associated notional amounts:

	Fair Value Level	December 31, 2020			December 31, 2019		
		Notional	Fair Value of Assets	Fair Value of Liabilities	Notional	Fair Value of Assets	Fair Value of Liabilities
Derivatives designated as hedges(a)							
Fair value hedges							
Interest rate swaps	2	\$ 10,064	\$ 463	\$ 13	\$ 9,458	\$ 234	\$ 23
Foreign currency swaps	2	1,958	128	9	1,796	22	71
Cash flow hedges							
Interest rate swaps	2	921	—	27	590	—	6
Foreign currency swaps	2	5,626	278	47	4,429	40	119
Derivatives not designated as hedges(a)							
Interest rate contracts	2	110,997	954	576	92,400	340	300
Total derivative financial instruments(b)		<u>\$ 129,566</u>	<u>\$ 1,823</u>	<u>\$ 672</u>	<u>\$ 108,673</u>	<u>\$ 636</u>	<u>\$ 519</u>

- (a) The gains/losses included in our consolidated income statements and statements of comprehensive income for the years ended December 31, 2020, 2019 and 2018 were insignificant, unless otherwise noted. Amounts accrued for interest payments in a net receivable position are included in Other assets. Amounts accrued for interest payments in a net payable position are included in Other liabilities.
- (b) GM Financial held \$728 million and \$210 million of collateral from counterparties available for netting against GM Financial's asset positions, and posted an insignificant amount of collateral to counterparties available for netting against GM Financial's liability positions at December 31, 2020 and 2019.

The fair value for Level 2 instruments was derived using the market approach based on observable market inputs including quoted prices of similar instruments and foreign exchange and interest rate forward curves.

The following amounts were recorded in the consolidated balance sheets related to items designated and qualifying as hedged items in fair value hedging relationships:

	December 31, 2020		December 31, 2019	
	Carrying Amount of Hedged Items	Cumulative Amount of Fair Value Hedging Adjustments(a)	Carrying Amount of Hedged Items	Cumulative Amount of Fair Value Hedging Adjustments(a)
Short-term unsecured debt	\$ 4,858	\$ (69)	\$ 996	\$ 4
Long-term unsecured debt	18,457	(670)	19,401	(81)
GM Financial unsecured debt	<u>\$ 23,315</u>	<u>\$ (739)</u>	<u>\$ 20,397</u>	<u>\$ (77)</u>

- (a) Includes \$200 million of unamortized gains and an insignificant amount of amortization remaining on hedged items for which hedge accounting has been discontinued at December 31, 2020 and 2019.

Note 15. Pensions and Other Postretirement Benefits

Employee Pension and Other Postretirement Benefit Plans

Defined Benefit Pension Plans Defined benefit pension plans covering eligible U.S. hourly employees (hired prior to October 2007) and Canadian hourly employees (hired prior to October 2016) generally provide benefits of negotiated, stated amounts for each year of service and supplemental benefits for employees who retire with 30 years of service before normal retirement age. The benefits provided by the defined benefit pension plans covering eligible U.S. (hired prior to January 1, 2001) and Canadian salaried employees and employees in certain other non-U.S. locations are generally based on years of service and compensation history. Accrual of defined pension benefits ceased in 2012 for U.S. and Canadian salaried employees. There is also an unfunded nonqualified pension plan primarily covering U.S. executives for service prior to January 1, 2007 and it is based on an “excess plan” for service after that date.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

The funding policy for qualified defined benefit pension plans is to contribute annually not less than the minimum required by applicable laws and regulations or to directly pay benefit payments where appropriate. In the year ended December 31, 2020 all legal funding requirements were met. The following table summarizes contributions made to the defined benefit pension plans:

	Years Ended December 31,		
	2020	2019	2018
U.S. hourly and salaried	\$ 68	\$ 83	\$ 76
Non-U.S.	396	532	1,624
Total	\$ 464	\$ 615	\$ 1,700

We expect to contribute approximately \$70 million to our U.S. non-qualified plans and approximately \$500 million to our non-U.S. pension plans in 2021.

Based on our current assumptions, over the next five years we expect no significant mandatory contributions to our U.S. qualified pension plans and mandatory contributions totaling \$366 million to our U.K. and Canada pension plans.

Other Postretirement Benefit Plans Certain hourly and salaried defined benefit plans provide postretirement medical, dental, legal service and life insurance to eligible U.S. and Canadian retirees and their eligible dependents. Certain other non-U.S. subsidiaries have postretirement benefit plans, although most non-U.S. employees are covered by government sponsored or administered programs. We made contributions to the U.S. OPEB plans of \$343 million, \$326 million and \$325 million in the years ended December 31, 2020, 2019 and 2018. Plan participants' contributions were insignificant in the years ended December 31, 2020, 2019 and 2018.

Defined Contribution Plans We have defined contribution plans for eligible U.S. salaried and hourly employees that provide discretionary matching contributions. Contributions are also made to certain non-U.S. defined contribution plans. We made contributions to our defined contribution plans of \$573 million, \$537 million and \$617 million in the years ended December 31, 2020, 2019 and 2018.

Significant Plan Amendments, Benefit Modifications and Related Events

Other Remeasurements The SOA issued mortality improvement tables in the three months ended December 31, 2020. We incorporated these SOA mortality improvement tables into the December 31, 2020 measurement of our U.S. pension and OPEB plans' benefit obligations. The change in these assumptions decreased the December 31, 2020 U.S. pension and OPEB plans' obligations by \$686 million. We incorporated the mortality improvement tables issued by the SOA in the three months ended December 31, 2018, and updated our base mortality assumptions in the U.S. This change in assumption decreased the December 31, 2018 U.S. pension and OPEB plans' obligations by \$264 million.

GENERAL MOTORS COMPANY AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

Pension and OPEB Obligations and Plan Assets

	Year Ended December 31, 2020			Year Ended December 31, 2019		
	Pension Benefits		Global OPEB Plans	Pension Benefits		Global OPEB Plans
	U.S.	Non-U.S.		U.S.	Non-U.S.	
Change in benefit obligations						
Beginning benefit obligation	\$ 64,684	\$ 21,398	\$ 6,304	\$ 61,190	\$ 19,904	\$ 5,744
Service cost	177	133	19	179	120	17
Interest cost	1,716	362	173	2,264	456	220
Actuarial losses	4,757	1,506	551	6,444	1,653	641
Benefits paid	(4,600)	(1,132)	(408)	(4,753)	(1,234)	(395)
Foreign currency translation adjustments	—	870	(3)	—	561	54
Curtailments, settlements and other	(266)	(2,330)	20	(640)	(62)	23
Ending benefit obligation	<u>66,468</u>	<u>20,807</u>	<u>6,656</u>	<u>64,684</u>	<u>21,398</u>	<u>6,304</u>
Change in plan assets						
Beginning fair value of plan assets	59,239	14,961	—	56,102	13,528	—
Actual return on plan assets	6,635	1,573	—	8,454	1,669	—
Employer contributions	68	396	387	83	532	370
Benefits paid	(4,600)	(1,132)	(408)	(4,753)	(1,234)	(395)
Foreign currency translation adjustments	—	389	—	—	668	—
Settlements and other	(265)	(2,341)	21	(647)	(202)	25
Ending fair value of plan assets	<u>61,077</u>	<u>13,846</u>	<u>—</u>	<u>59,239</u>	<u>14,961</u>	<u>—</u>
Ending funded status	<u>\$ (5,391)</u>	<u>\$ (6,961)</u>	<u>\$ (6,656)</u>	<u>\$ (5,445)</u>	<u>\$ (6,437)</u>	<u>\$ (6,304)</u>
Amounts recorded in the consolidated balance sheets						
Non-current assets	\$ —	\$ 980	\$ —	\$ —	\$ 698	\$ —
Current liabilities	(66)	(364)	(379)	(68)	(342)	(369)
Non-current liabilities	(5,325)	(7,577)	(6,277)	(5,377)	(6,793)	(5,935)
Net amount recorded	<u>\$ (5,391)</u>	<u>\$ (6,961)</u>	<u>\$ (6,656)</u>	<u>\$ (5,445)</u>	<u>\$ (6,437)</u>	<u>\$ (6,304)</u>
Amounts recorded in Accumulated other comprehensive loss						
Net actuarial loss	\$ (3,256)	\$ (5,123)	\$ (1,823)	\$ (1,980)	\$ (4,688)	\$ (1,364)
Net prior service (cost) credit	11	(60)	20	14	(78)	27
Total recorded in Accumulated other comprehensive loss	<u>\$ (3,245)</u>	<u>\$ (5,183)</u>	<u>\$ (1,803)</u>	<u>\$ (1,966)</u>	<u>\$ (4,766)</u>	<u>\$ (1,337)</u>

In the years ended December 31, 2020 and 2019, the actuarial losses on the benefit obligations were primarily due to decreases in discount rates for all plans.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

The following table summarizes the total accumulated benefit obligations (ABO), the ABO and fair value of plan assets for defined benefit pension plans with ABO in excess of plan assets, and the projected benefit obligation (PBO) and fair value of plan assets for defined benefit pension plans with PBO in excess of plan assets:

	December 31, 2020		December 31, 2019	
	U.S.	Non-U.S.	U.S.	Non-U.S.
ABO	\$ 66,448	\$ 20,721	\$ 64,669	\$ 21,319
Plans with ABO in excess of plan assets				
ABO	\$ 66,448	\$ 12,042	\$ 64,669	\$ 10,996
Fair value of plan assets	\$ 61,077	\$ 4,185	\$ 59,239	\$ 3,940
Plans with PBO in excess of plan assets				
PBO	\$ 66,468	\$ 12,128	\$ 64,684	\$ 11,079
Fair value of plan assets	\$ 61,077	\$ 4,186	\$ 59,239	\$ 3,940

The following table summarizes the components of net periodic pension and OPEB expense along with the assumptions used to determine benefit obligations:

	Year Ended December 31, 2020			Year Ended December 31, 2019			Year Ended December 31, 2018		
	Pension Benefits		Global OPEB Plans	Pension Benefits		Global OPEB Plans	Pension Benefits		Global OPEB Plans
	U.S.	Non-U.S.		U.S.	Non-U.S.		U.S.	Non-U.S.	
Components of expense									
Service cost	\$ 251	\$ 145	\$ 19	\$ 393	\$ 132	\$ 17	\$ 330	\$ 163	\$ 20
Interest cost	1,716	362	173	2,264	456	220	2,050	464	195
Expected return on plan assets	(3,267)	(675)	—	(3,483)	(786)	—	(3,890)	(825)	—
Amortization of net actuarial losses	16	171	74	11	122	30	10	144	54
Curtailments, settlements and other	17	241	(8)	21	142	(23)	(19)	43	(19)
Net periodic pension and OPEB (income) expense	<u>\$(1,267)</u>	<u>\$ 244</u>	<u>\$258</u>	<u>\$ (794)</u>	<u>\$ 66</u>	<u>\$244</u>	<u>\$(1,519)</u>	<u>\$ (11)</u>	<u>\$250</u>
Weighted-average assumptions used to determine benefit obligations(a)									
Discount rate	2.37 %	1.62 %	2.53 %	3.20 %	2.16 %	3.24 %	4.22 %	2.86 %	4.19 %
Weighted-average assumptions used to determine net expense(a)									
Discount rate	2.84 %	2.80 %	3.00 %	3.92 %	3.36 %	4.07 %	3.19 %	2.99 %	3.29 %
Expected rate of return on plan assets	5.88 %	4.96 %	N/A	6.37 %	5.76 %	N/A	6.61 %	6.09 %	N/A

(a) The rate of compensation increase and the cash balance interest crediting rates do not have a significant effect on our U.S. pension and OPEB plans.

The non-service cost components of the net periodic pension and OPEB income are presented in Interest income and other non-operating income, net. Refer to Note 19 for additional information.

U.S. pension plan service cost includes administrative expenses and Pension Benefit Guarantee Corporation premiums were insignificant, \$214 million and \$121 million for the years ended December 31, 2020, 2019 and 2018. Weighted-average assumptions used to determine net expense are determined at the beginning of the period and updated for remeasurements. Non-U.S. pension plan administrative expenses included in service cost were insignificant in the years ended December 31, 2020, 2019 and 2018.

In the three months ended December 31, 2020, we completed a \$1.5 billion annuity purchase for salaried retirees in Canada. This resulted in a non-operating pension settlement charge of \$130 million.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

Assumptions

Investment Strategies and Long-Term Rate of Return Detailed periodic studies are conducted by our internal asset management group as well as outside actuaries and are used to determine the long-term strategic mix among asset classes, risk mitigation strategies and the expected long-term return on asset assumptions for the U.S. pension plans. The U.S. study includes a review of alternative asset allocation and risk mitigation strategies, anticipated future long-term performance and risk of the individual asset classes that comprise the plans' asset mix. Similar studies are performed for the significant non-U.S. pension plans with the assistance of outside actuaries and asset managers. While the studies incorporate data from recent plan performance and historical returns, the expected rate of return on plan assets represents our estimate of long-term prospective rates of return.

We continue to pursue various options to fund and de-risk our pension plans, including continued changes to the pension asset portfolio mix to reduce funded status volatility. The strategic asset mix and risk mitigation strategies for the plans are tailored specifically for each plan. Individual plans have distinct liabilities, liquidity needs and regulatory requirements. Consequently there are different investment policies set by individual plan fiduciaries. Although investment policies and risk mitigation strategies may differ among plans, each investment strategy is considered to be appropriate in the context of the specific factors affecting each plan.

In setting new strategic asset mixes, consideration is given to the likelihood that the selected asset mixes will effectively fund the projected pension plan liabilities, while aligning with the risk tolerance of the plans' fiduciaries. The strategic asset mixes for U.S. defined benefit pension plans are increasingly designed to satisfy the competing objectives of improving funded positions (market value of assets equal to or greater than the present value of the liabilities) and mitigating the possibility of a deterioration in funded status.

Derivatives may be used to provide cost effective solutions for rebalancing investment portfolios, increasing or decreasing exposure to various asset classes and for mitigating risks, primarily interest rate, equity and currency risks. Equity and fixed income managers are permitted to utilize derivatives as efficient substitutes for traditional securities. Interest rate derivatives may be used to adjust portfolio duration to align with a plan's targeted investment policy and equity derivatives may be used to protect equity positions from downside market losses. Alternative investment managers are permitted to employ leverage, including through the use of derivatives, which may alter economic exposure.

In December 2020, an investment policy study was completed for the U.S. pension plans. As a result of changes to our capital market assumptions, the weighted-average long-term rate of return on assets decreased from 5.9% at December 31, 2019 to 5.6% at December 31, 2020. The expected long-term rate of return on plan assets used in determining pension expense for non-U.S. plans is determined in a similar manner to the U.S. plans.

Target Allocation Percentages The following table summarizes the target allocations by asset category for U.S. and non-U.S. defined benefit pension plans:

	December 31, 2020		December 31, 2019	
	U.S.	Non-U.S.	U.S.	Non-U.S.
Equity	12 %	16 %	12 %	14 %
Debt	64 %	66 %	64 %	67 %
Other(a)	24 %	18 %	24 %	19 %
Total	100 %	100 %	100 %	100 %

(a) Primarily includes private equity, real estate and absolute return strategies which mainly consist of hedge funds.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

Assets and Fair Value Measurements The following tables summarize the fair value of U.S. and non-U.S. defined benefit pension plan assets by asset class:

	December 31, 2020				December 31, 2019			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
U.S. Pension Plan Assets								
Common and preferred stocks	\$ 7,429	\$ —	\$ 1	\$ 7,430	\$ 6,232	\$ 19	\$ 1	\$ 6,252
Government and agency debt securities(a)	—	13,231	—	13,231	—	13,843	—	13,843
Corporate and other debt securities	—	26,475	—	26,475	—	24,809	—	24,809
Other investments, net(b)(c)	(834)	(8)	427	(415)	(47)	25	401	379
Net plan assets subject to leveling	<u>\$ 6,595</u>	<u>\$ 39,698</u>	<u>\$ 428</u>	46,721	<u>\$ 6,185</u>	<u>\$ 38,696</u>	<u>\$ 402</u>	45,283
Plan assets measured at net asset value								
Investment funds				7,534				7,031
Private equity and debt investments				3,137				2,951
Real estate investments				3,061				3,484
Total plan assets measured at net asset value				<u>13,732</u>				<u>13,466</u>
Other plan assets, net(d)				624				490
Net plan assets				<u>\$ 61,077</u>				<u>\$ 59,239</u>

	December 31, 2020				December 31, 2019			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Non-U.S. Pension Plan Assets								
Common and preferred stocks	\$ 572	\$ —	\$ —	\$ 572	\$ 489	\$ 1	\$ —	\$ 490
Government and agency debt securities(a)	—	3,178	—	3,178	—	3,927	—	3,927
Corporate and other debt securities	—	2,762	—	2,762	—	3,230	—	3,230
Other investments, net(b)(e)	31	(79)	127	79	(5)	(107)	248	136
Net plan assets subject to leveling	<u>\$ 603</u>	<u>\$ 5,861</u>	<u>\$ 127</u>	6,591	<u>\$ 484</u>	<u>\$ 7,051</u>	<u>\$ 248</u>	7,783
Plan assets measured at net asset value								
Investment funds				5,870				5,608
Private equity and debt investments				489				511
Real estate investments				917				982
Total plan assets measured at net asset value				<u>7,276</u>				<u>7,101</u>
Other plan assets (liabilities), net(d)				(21)				77
Net plan assets				<u>\$ 13,846</u>				<u>\$ 14,961</u>

(a) Includes U.S. and sovereign government and agency issues.

(b) Includes net derivative assets (liabilities).

(c) Level 1 Other investments, net includes derivative liabilities approximating \$1.0 billion related to equity option and futures contracts at December 31, 2020.

(d) Cash held by the plans, net of amounts receivable/payable for unsettled security transactions and payables for investment manager fees, custody fees and other expenses.

(e) Level 2 Other investments, net includes Canadian reverse repurchase agreements.

The activity attributable to U.S. and non-U.S. Level 3 defined benefit pension plan investments was insignificant in the years ended December 31, 2020 and 2019.

Investment Fund Strategies Investment funds include hedge funds, funds of hedge funds, equity funds and fixed income funds. Hedge funds and funds of hedge funds managers typically seek to achieve their objectives by allocating capital across a broad array of funds and/or investment managers. Equity funds invest in U.S. common and preferred stocks as well as similar equity securities issued by companies incorporated, listed or domiciled in developed and/or emerging market countries. Fixed income funds include investments in high quality funds and, to a lesser extent, high yield funds. High quality fixed income funds invest in government securities, investment-grade corporate bonds and mortgage and asset-backed securities. High yield fixed income funds invest in high yield fixed income securities issued by corporations which are rated below investment grade. Other investment funds also included in this category primarily represent multi-strategy funds that invest in broadly diversified portfolios of equity, fixed income and derivative instruments.

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Private equity and debt investments primarily consist of investments in private equity and debt funds. These investments provide exposure to and benefit from long-term equity investments in private companies, including leveraged buy-outs, venture capital and distressed debt strategies.

Real estate investments include funds that invest in entities which are primarily engaged in the ownership, acquisition, development, financing, sale and/or management of income-producing real estate properties, both commercial and residential. These funds typically seek long-term growth of capital and current income that is above average relative to public equity funds.

Significant Concentrations of Risk The assets of the pension plans include certain investment funds, private equity and debt investments and real estate investments. Investment managers may be unable to quickly sell or redeem some or all of these investments at an amount close or equal to fair value in order to meet a plan's liquidity requirements or to respond to specific events such as deterioration in the creditworthiness of any particular issuer or counterparty.

Illiquid investments held by the plans are generally long-term investments that complement the long-term nature of pension obligations and are not used to fund benefit payments when currently due. Plan management monitors liquidity risk on an ongoing basis and has procedures in place that are designed to maintain flexibility in addressing plan-specific, broader industry and market liquidity events.

The pension plans may invest in financial instruments denominated in foreign currencies and may be exposed to risks that the foreign currency exchange rates might change in a manner that has an adverse effect on the value of the foreign currency denominated assets or liabilities. Forward currency contracts may be used to manage and mitigate foreign currency risk.

The pension plans may invest in debt securities for which any change in the relevant interest rates for particular securities might result in an investment manager being unable to secure similar returns upon the maturity or the sale of securities. In addition, changes to prevailing interest rates or changes in expectations of future interest rates might result in an increase or decrease in the fair value of the securities held. Interest rate swaps and other financial derivative instruments may be used to manage interest rate risk.

Benefit Payments Benefits for most U.S. pension plans and certain non-U.S. pension plans are paid out of plan assets rather than our Cash and cash equivalents. The following table summarizes net benefit payments expected to be paid in the future, which include assumptions related to estimated future employee service:

	Pension Benefits		Global OPEB Plans
	U.S. Plans	Non-U.S. Plans	
2021	\$ 4,821	\$ 1,172	\$ 379
2022	\$ 4,614	\$ 1,070	\$ 374
2023	\$ 4,495	\$ 1,038	\$ 369
2024	\$ 4,387	\$ 1,015	\$ 364
2025	\$ 4,278	\$ 1,000	\$ 361
2026 - 2030	\$ 19,469	\$ 4,673	\$ 1,761

Note 16. Commitments and Contingencies

Litigation-Related Liability and Tax Administrative Matters In the normal course of our business, we are named from time to time as a defendant in various legal actions, including arbitrations, class actions and other litigation. We identify below the material individual proceedings and investigations where we believe a material loss is reasonably possible or probable. We accrue for matters when we believe that losses are probable and can be reasonably estimated. At December 31, 2020 and 2019, we had accruals of \$1.2 billion and \$1.3 billion in Accrued liabilities and Other liabilities. In many matters, it is inherently difficult to determine whether loss is probable or reasonably possible or to estimate the size or range of the possible loss. Accordingly adverse outcomes from such proceedings could exceed the amounts accrued by an amount that could be material to our results of operations or cash flows in any particular reporting period.

Proceedings Related to Ignition Switch Recall and Other Recalls In 2014 we announced various recalls relating to safety and other matters. Those recalls included recalls to repair ignition switches that could under certain circumstances

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unintentionally move from the “run” position to the “accessory” or “off” position with a corresponding loss of power, which could in turn prevent airbags from deploying in the event of a crash.

Appellate Litigation Regarding Successor Liability Ignition Switch Claims In 2016, the U.S. Court of Appeals for the Second Circuit held that the 2009 order of the United States Bankruptcy Court for the Southern District of New York (Bankruptcy Court) approving the sale of substantially all of the assets of Motors Liquidation Company (MLC) to GM free and clear of, among other things, claims asserting successor liability for obligations owed by MLC could not be enforced to bar claims against GM asserted by either plaintiffs who purchased used vehicles after the sale or against purchasers who asserted claims relating to the ignition switch defect, including pre-sale personal injury claims and economic-loss claims.

Economic-Loss Claims We are aware of over 100 putative class actions that were filed against GM in U.S. and Canadian courts alleging that consumers who purchased or leased vehicles manufactured by GM or MLC had been economically harmed by one or more of the 2014 recalls and/or the underlying vehicle conditions associated with those recalls (economic-loss cases). In general, these economic-loss cases seek recovery for purported compensatory damages, such as alleged benefit-of-the-bargain damages or damages related to alleged diminution in value of the vehicles, as well as punitive damages, injunctive relief and other relief.

Many of the pending U.S. economic-loss claims have been transferred to, and consolidated in, a single federal court, the U.S. District Court for the Southern District of New York (Southern District). These plaintiffs have asserted economic-loss claims under federal and state laws, including claims relating to recalled vehicles manufactured by GM and claims asserting successor liability relating to certain recalled vehicles manufactured by MLC.

In August 2017, the Southern District granted our motion to dismiss the successor liability claims of plaintiffs in seven of the sixteen states at issue on the motion and called for additional briefing to decide whether plaintiffs' claims can proceed in the other nine states. In December 2017, the Southern District granted GM's motion and dismissed the plaintiffs' successor liability claims in an additional state, but found that there are genuine issues of material fact that prevent summary judgment for GM in eight other states. In January 2018, GM moved for reconsideration of certain portions of the Southern District's December 2017 summary judgment ruling. That motion was granted in April 2018, dismissing plaintiffs' successor liability claims in any state where New York law applies.

In September 2018, the Southern District granted our motion to dismiss claims for lost personal time (in 41 out of 47 jurisdictions) and certain unjust enrichment claims, but denied our motion to dismiss plaintiffs' economic loss claims in 27 jurisdictions under the "manifest defect" rule.

In August 2019, the Southern District granted our motion for summary judgment on plaintiffs' economic loss “benefit of the bargain” damage claims (the August 2019 Opinion). The Southern District held that plaintiffs' conjoint analysis-based damages model failed to establish that plaintiffs suffered difference-in-value damages and without such evidence, plaintiffs' difference-in-value damage claims fail under the laws of all three bellwether states: California, Missouri and Texas. Later in August 2019, the bellwether plaintiffs filed a motion requesting that the Southern District reconsider its summary judgment decision or allow an interlocutory appeal if reconsideration is denied. In December 2019, the Southern District denied plaintiffs' motion for reconsideration of the August 2019 Opinion, but granted the plaintiffs' motion for certification of an interlocutory appeal. On April 1, 2020, the Second Circuit Court of Appeals (the Second Circuit) granted the bellwether plaintiffs' petition seeking leave to appeal the August 2019 Opinion. On April 15, 2020, the bellwether plaintiffs and GM filed a Stipulation to withdraw the appeal from the Second Circuit based on the class settlement agreement described below.

In September 2019, GM filed an updated motion for summary judgment on plaintiffs' remaining economic loss claims that were not addressed in the Southern District's August 2019 Opinion and renewed its evidentiary motion seeking to strike the opinions of plaintiff's expert on plaintiffs' alleged “lost time” damages associated with having the recall repairs performed.

In March 2020, GM, plaintiffs and the MLC GUC Trust (GUC Trust) reached a settlement agreement (Class Settlement Agreement) to resolve on a national basis the economic loss claims of the proposed settlement class and proposed sub-classes, consisting of consumers who purchased or leased GM vehicles covered by the seven 2014 safety recalls at issue in the Southern District and the Bankruptcy Court. The proposed Class Settlement Agreement provides a common fund of approximately \$120 million for settlement class members, of which GM will fund approximately \$70 million and the GUC Trust will fund the remaining \$50 million. GM will also pay attorneys' fees and costs that may be awarded by the Southern District to plaintiffs' counsel up to a maximum of \$35 million. In April 2020, the Avoidance Action Trust (AAT), GM and plaintiffs reached a

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tentative settlement under which the AAT will pay an insignificant amount and will be added as a settling party to the Class Settlement Agreement. During April and May 2020, the Southern District entered orders granting preliminary approval of the Class Settlement Agreement.

In December 2020, the Southern District conducted a final fairness hearing and issued an order granting final approval of the Class Settlement Agreement in its entirety. The order granting final approval became final, effective and binding in January 2021. The deadline for class members to file claims is April 2021.

Contingently Issuable Shares Under the Amended and Restated Master Sale and Purchase Agreement between GM and MLC, GM was obligated to issue Adjustment Shares of our common stock if allowed general unsecured claims against the GUC Trust, as estimated by the Bankruptcy Court, exceed \$35.0 billion.

In March 2020, in conjunction with the Class Settlement Agreement, the GUC Trust filed a motion in the Bankruptcy Court seeking approval to enter into and take actions necessary to execute the Class Settlement Agreement, and seeking Bankruptcy Court authorization permitting the GUC Trust to distribute \$300 million of GUC Trust assets to its unitholders and entry into a mutual release agreement with GM that would release GM from any and all claims, including any that would require GM to issue any Adjustment Shares. Bankruptcy Court approval of the GUC Trust motion is a condition precedent to preliminary approval of the Class Settlement Agreement by the Southern District. In April 2020, the Bankruptcy Court entered an order approving the GUC Trust's motion in its entirety. In May 2020, the approval and the mutual release agreement became binding and enforceable and GM was fully released from its potential Adjustment Shares obligation.

Personal Injury Claims We also are aware of less than one hundred active personal injury actions, exclusive of matters subject to settlements in principal, pending in various courts in the U.S. and Canada alleging injury or death as a result of defects that may be the subject of the 2014 recalls. In general, these cases seek recovery for purported compensatory damages, punitive damages and/or other relief. Since 2016, several bellwether trials of these cases have taken place in the Southern District and in a Texas state court, which is administering a Texas state multi-district litigation. None of these trials resulted in a finding of liability against GM.

Government Matters In connection with the 2014 recalls, we have from time to time received subpoenas and other requests for information related to investigations by agencies or other representatives of U.S. federal, state and the Canadian governments. GM is cooperating with all reasonable pending requests for information. Any existing governmental matters or investigations could in the future result in the imposition of damages, fines, civil consent orders, civil and criminal penalties or other remedies.

The total amount accrued for the 2014 recalls at December 31, 2020, reflects amounts for a combination of settled but unpaid matters, and for the remaining unsettled investigations, claims and/or lawsuits relating to the ignition switch recalls and other related recalls to the extent that such matters are probable and can be reasonably estimated. The amounts accrued for those unsettled investigations, claims, and/or lawsuits represent a combination of our best single point estimates where determinable and, where no such single point estimate is determinable, our estimate of the low end of the range of probable loss with regard to such matters, if that is determinable. We will continue to consider resolution of pending matters involving ignition switch recalls and other recalls where it makes sense to do so.

GM Korea Wage Litigation GM Korea is party to litigation with current and former hourly employees in the appellate court and Incheon District Court in Incheon, Korea. The group actions, which in the aggregate involve more than 10,000 employees, allege that GM Korea failed to include bonuses and certain allowances in its calculation of Ordinary Wages due under Korean regulations. In 2012 the Seoul High Court (an intermediate-level appellate court) affirmed a decision in one of these group actions involving five GM Korea employees which was contrary to GM Korea's position. GM Korea appealed to the Supreme Court of the Republic of Korea (Korean Supreme Court). In 2014 the Korean Supreme Court largely agreed with GM Korea's legal arguments and remanded the case to the Seoul High Court for consideration consistent with earlier Korean Supreme Court precedent holding that while fixed bonuses should be included in the calculation of Ordinary Wages, claims for retroactive application of this rule would be barred under certain circumstances. In 2015, on reconsideration, the Seoul High Court held in GM Korea's favor, after which the plaintiffs appealed to the Korean Supreme Court. In July 2020, the Korean Supreme Court held in GM Korea's favor. In light of this decision, we believe the probability that we will incur a material loss is remote and we estimate our loss in excess of amounts accrued is insignificant at December 31, 2020.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

GM Korea is also party to litigation with current and former salaried employees over allegations relating to Ordinary Wages regulation and whether to include fixed bonuses in the calculation of Ordinary Wages. In 2017, the Seoul High Court held that certain workers are not barred from filing retroactive wage claims. GM Korea appealed this ruling to the Korean Supreme Court. The Korean Supreme Court has not yet rendered a decision. We estimate our reasonably possible loss in excess of amounts accrued to be approximately \$190 million at December 31, 2020. Both the scope of claims asserted and GM Korea's assessment of any or all of the individual claim elements may change if new information becomes available or the legal or regulatory frameworks change.

GM Korea is also party to litigation with current and former subcontract workers over allegations that they are entitled to the same wages and benefits provided to full-time employees, and to be hired as full-time employees. In May 2018 and September 2020, the Korean labor authorities issued adverse administrative orders finding that GM Korea must hire certain current subcontract workers as full-time employees. GM Korea appealed the May 2018 order and plans to appeal the September 2020 order. In June 2020, the Seoul High Court ruled against GM Korea in one of the subcontract worker claims. GM Korea has appealed this decision to the Korean Supreme Court. At December 31, 2020, our accrual covering certain asserted claims and claims that we believe are probable of assertion and for which liability is probable was approximately \$240 million. We estimate the reasonably possible loss in excess of amounts accrued for other current subcontract workers who may assert similar claims to be approximately \$120 million at December 31, 2020. We are currently unable to estimate any possible loss or range of loss that may result from additional claims that may be asserted by former subcontract workers.

GM Brazil Indirect Tax Claim In 2019, the Superior Court of Brazil rendered favorable decisions on three cases brought by GM Brazil challenging whether a certain state value-added tax should be included in the calculation of federal gross receipts taxes. Those decisions granted the Company the right to recover, through offset of federal tax liabilities, certain amounts collected by the government between August 2001 and February 2017. As a result, GM Brazil recorded pre-tax recoveries of \$1.4 billion in Automotive and other cost of sales in the year ended December 31, 2019. Realization of these recoveries depends on the timing of administrative approvals and generation of federal tax liabilities eligible for offset. The Brazilian IRS has filed a Motion of Clarification on this matter with the Brazilian Supreme Court, which motion is awaiting decision. In addition, we expect third parties to make claims on some or all of the pre-tax recoveries, against which GM intends to defend.

Other Litigation-Related Liability and Tax Administrative Matters Various other legal actions, including class actions, governmental investigations, claims and proceedings, are pending against us or our related companies or joint ventures, including matters arising out of alleged product defects; employment-related matters; product and workplace safety, vehicle emissions and fuel economy regulations; product warranties; financial services; dealer, supplier and other contractual relationships; government regulations relating to competition issues; tax-related matters not subject to the provision of Accounting Standards Codification 740, Income Taxes (indirect tax-related matters); product design, manufacture and performance; consumer protection laws; and environmental protection laws, including laws regulating air emissions, water discharges, waste management and environmental remediation from stationary sources.

There are several putative class actions pending against GM in federal courts in the U.S. and in the Provincial Courts in Canada alleging that various vehicles sold, including model year 2011-2016 Duramax Diesel Chevrolet Silverado and GMC Sierra vehicles, violate federal, state and foreign emission standards. We are unable to estimate any reasonably possible loss or range of loss that may result from these actions. GM has also faced a series of additional lawsuits in the U.S. based on these allegations, including putative shareholder class actions claiming violations of federal securities law and a shareholder demand lawsuit. The securities lawsuits have been voluntarily dismissed by the plaintiffs in those actions.

We believe that appropriate accruals have been established for losses that are probable and can be reasonably estimated. It is possible that the resolution of one or more of these matters could exceed the amounts accrued in an amount that could be material to our results of operations. We also from time to time receive subpoenas and other inquiries or requests for information from agencies or other representatives of U.S. federal, state and foreign governments on a variety of issues.

Indirect tax-related matters are being litigated globally pertaining to value added taxes, customs, duties, sales, property taxes and other non-income tax related tax exposures. The various non-U.S. labor-related matters include claims from current and former employees related to alleged unpaid wage, benefit, severance and other compensation matters. Certain administrative proceedings are indirect tax-related and may require that we deposit funds in escrow or provide an alternative form of security. Some of the matters may involve compensatory, punitive or other treble damage claims, environmental remediation programs or sanctions that, if granted, could require us to pay damages or make other expenditures in amounts that could not be reasonably estimated at December 31, 2020. We believe that appropriate accruals have been established for losses that are

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

probable and can be reasonably estimated. For indirect tax-related matters we estimate our reasonably possible loss in excess of amounts accrued to be up to approximately \$750 million at December 31, 2020.

Takata Matters In May 2016, NHTSA issued an amended consent order requiring Takata to file defect information reports (DIRs) for previously unrecalled front airbag inflators that contain phased-stabilized ammonium nitrate-based propellant without a moisture absorbing desiccant on a multi-year, risk-based schedule through 2019 impacting tens of millions of vehicles produced by numerous automotive manufacturers. NHTSA concluded that the likely root cause of the rupturing of the airbag inflators is a function of time, temperature cycling and environmental moisture.

In cooperation with NHTSA we filed Preliminary DIRs covering certain of our GMT900 vehicles, which are full-size pickup trucks and SUVs, and petitions for inconsequentiality with respect to the vehicles subject to those Preliminary DIRs.

In November 2020, NHTSA denied GM's petitions for inconsequentiality relating to the Takata passenger-side inflators in certain GMT900 vehicles. NHTSA has directed that we replace the airbag inflators in the vehicles in question, and we have decided not to contest NHTSA's decision. While we have already begun the process of executing the recall, given the number of vehicles in this population, the recall will take several years to be completed.

Accordingly, in the three months ended December 31, 2020, we recorded a warranty accrual of \$1.1 billion for the expected costs of complying with the recall remedy.

GM has recalled certain vehicles sold outside of the U.S. to replace Takata inflators in those vehicles. There are significant differences in vehicle and inflator design between the relevant vehicles sold internationally and those sold in the U.S. We continue to gather and analyze evidence about these inflators and to share our findings with regulators. Additional recalls, if any, could be material to our results of operations and cash flows. We continue to monitor the international situation.

There are several putative class actions that have been filed against GM, including in the federal courts in the U.S., in the Provincial Courts in Canada, and in Mexico and Israel, arising out of allegations that airbag inflators manufactured by Takata are defective. At this stage of these proceedings, we are unable to provide an estimate of the amounts or range of possible loss.

Product Liability We recorded liabilities of \$589 million and \$544 million in Accrued liabilities and Other liabilities at December 31, 2020 and 2019, for the expected cost of all known product liability claims, plus an estimate of the expected cost for product liability claims that have already been incurred and are expected to be filed in the future for which we are self-insured. It is reasonably possible that our accruals for product liability claims may increase in future periods in material amounts, although we cannot estimate a reasonable range of incremental loss based on currently available information. Other than claims relating to the ignition switch recalls discussed above, we believe that any judgment against us involving our and MLC products for actual damages will be adequately covered by our recorded accruals and, where applicable, excess liability insurance coverage.

Guarantees We enter into indemnification agreements for liability claims involving products manufactured primarily by certain joint ventures. These guarantees terminate in years ranging from 2021 to 2026 or upon the occurrence of specific events or are ongoing. We believe that the related potential costs incurred are adequately covered by our recorded accruals, which are insignificant. The maximum future undiscounted payments mainly based on vehicles sold to date were \$3.1 billion and \$2.6 billion for these guarantees at December 31, 2020 and 2019, the majority of which relates to the indemnification agreements.

We provide payment guarantees on commercial loans outstanding with third parties such as dealers. In some instances certain assets of the party or our payables to the party whose debt or performance we have guaranteed may offset, to some degree, the amount of any potential future payments. We are also exposed to residual value guarantees associated with certain sales to rental car companies.

We periodically enter into agreements that incorporate indemnification provisions in the normal course of business. It is not possible to estimate our maximum exposure under these indemnifications or guarantees due to the conditional nature of these obligations. Insignificant amounts have been recorded for such obligations as the majority of them are not probable or estimable at this time and the fair value of the guarantees at issuance was insignificant. Refer to Note 22 for additional information on our indemnification obligations to PSA Group under the Master Agreement (the Agreement).

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

Credit Cards Credit card programs offer rebates that can be applied primarily against the purchase or lease of our vehicles. At December 31, 2020 and 2019, our redemption liability was insignificant, our deferred revenue was \$252 million and \$253 million, and qualified cardholders had rebates available, net of deferred program revenue, of \$1.3 billion and \$1.4 billion. Our redemption liability and deferred revenue are recorded in Accrued liabilities and Other liabilities.

Operating Leases Our portfolio of leases primarily consists of real estate office space, manufacturing and warehousing facilities, land and equipment. Certain leases contain escalation clauses and renewal or purchase options, and generally our leases have no residual value guarantees or material covenants. We exclude leases with a term of one year or less from our balance sheet, and do not separate non-lease components from our real estate leases.

Rent expense under operating leases was \$317 million and \$354 million in the years ended December 31, 2020 and 2019. Prior to adoption of ASU 2016-02, "Leases", rent expense under operating leases was \$300 million in the year ended December 31, 2018. Variable lease costs were insignificant in the years ended December 31, 2020 and 2019. At December 31, 2020 and 2019, operating lease right of use assets in Other assets were \$1.0 billion and \$1.1 billion, operating lease liabilities in Accrued liabilities were \$209 million and \$239 million and non-current operating lease liabilities in Other liabilities were \$969 million and \$1.0 billion. Operating lease right of use assets obtained in exchange for lease obligations were \$222 million and \$497 million in the years ended December 31, 2020 and 2019. Our undiscounted future lease obligations related to operating leases having initial terms in excess of one year are \$251 million, \$205 million, \$196 million, \$151 million, \$122 million and \$437 million for the years 2021, 2022, 2023, 2024, 2025 and thereafter, with imputed interest of \$184 million as of December 31, 2020. The weighted average discount rate was 4.0% and 4.2% and the weighted-average remaining lease term was 7.4 years and 7.2 years at December 31, 2020 and 2019. Payments for operating leases included in Net cash provided by (used in) operating activities were \$309 million and \$337 million in the years ended December 31, 2020 and 2019. Lease agreements that have not yet commenced were \$150 million at December 31, 2020.

Note 17. Income Taxes

	Years Ended December 31,		
	2020	2019	2018
U.S. income	\$ 6,881	\$ 3,826	\$ 4,433
Non-U.S. income	540	2,342	1,953
Income before income taxes and equity income	<u>\$ 7,421</u>	<u>\$ 6,168</u>	<u>\$ 6,386</u>
	Years Ended December 31,		
	2020	2019	2018
Current income tax expense (benefit)			
U.S. federal	\$ 84	\$ 42	\$ (104)
U.S. state and local	272	102	113
Non-U.S.	493	758	577
Total current income tax expense	849	902	586
Deferred income tax expense (benefit)			
U.S. federal	632	(145)	(578)
U.S. state and local	(15)	3	250
Non-U.S.	308	9	216
Total deferred income tax expense (benefit)	925	(133)	(112)
Total income tax expense	<u>\$ 1,774</u>	<u>\$ 769</u>	<u>\$ 474</u>

Provisions are made for estimated U.S. and non-U.S. income taxes which may be incurred on the reversal of our basis differences in investments in foreign subsidiaries and corporate joint ventures not deemed to be indefinitely reinvested. Taxes have not been provided on basis differences in investments primarily as a result of earnings in foreign subsidiaries which are deemed indefinitely reinvested of \$3.2 billion at December 31, 2020 and 2019. Additional basis differences related to investments in nonconsolidated China JVs exist of \$4.1 billion at December 31, 2020 and 2019 as a result of fresh-start reporting. Quantification of the deferred tax liability, if any, associated with indefinitely reinvested basis differences is not practicable.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

	Years Ended December 31,		
	2020	2019	2018
Income tax expense at U.S. federal statutory income tax rate	\$ 1,558	\$ 1,295	\$ 1,341
State and local tax expense	219	117	282
Non-U.S. income taxed at other than the U.S. federal statutory tax rate	(1)	166	90
U.S. tax impact on Non-U.S. income and activities	(160)	(197)	(822)
Change in valuation allowances	370	(233)	1,695
Change in tax laws	—	(122)	(134)
General business credits and manufacturing incentives	(366)	(420)	(695)
Capital loss expiration	—	—	107
Settlements of prior year tax matters	(18)	—	(188)
Realization of basis differences in affiliates	(12)	—	(59)
German statutory approval of net operating losses	—	—	(990)
Foreign currency remeasurement	(7)	74	19
Other adjustments	191	89	(172)
Total income tax expense	<u>\$ 1,774</u>	<u>\$ 769</u>	<u>\$ 474</u>

Deferred Income Tax Assets and Liabilities Deferred income tax assets and liabilities at December 31, 2020 and 2019 reflect the effect of temporary differences between amounts of assets, liabilities and equity for financial reporting purposes and the bases of such assets, liabilities and equity as measured based on tax laws, as well as tax loss and tax credit carryforwards. The following table summarizes the components of temporary differences and carryforwards that give rise to deferred tax assets and liabilities:

	<u>December 31, 2020</u>	<u>December 31, 2019</u>
Deferred tax assets		
Postretirement benefits other than pensions	\$ 1,742	\$ 1,695
Pension and other employee benefit plans	2,999	2,968
Warranties, dealer and customer allowances, claims and discounts	5,538	6,299
U.S. capitalized research expenditures	6,763	6,035
U.S. operating loss and tax credit carryforwards(a)	7,254	8,686
Non-U.S. operating loss and tax credit carryforwards(b)	7,216	6,731
Miscellaneous	3,479	1,965
Total deferred tax assets before valuation allowances	<u>34,991</u>	<u>34,379</u>
Less: valuation allowances	<u>(9,095)</u>	<u>(8,135)</u>
Total deferred tax assets	25,896	26,244
Deferred tax liabilities		
Property, plant and equipment	1,670	1,565
Intangible assets	744	763
Total deferred tax liabilities	<u>2,414</u>	<u>2,328</u>
Net deferred tax assets	<u>\$ 23,482</u>	<u>\$ 23,916</u>

(a) At December 31, 2020, U.S. operating loss and tax credit carryforwards of \$7.1 billion expire by 2040 if not utilized and the remaining balance of \$137 million may be carried forward indefinitely.

(b) At December 31, 2020, Non-U.S. operating loss and tax credit carryforwards of \$1.3 billion expire by 2040 if not utilized and the remaining balance of \$5.9 billion may be carried forward indefinitely.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

Valuation Allowances During the years ended December 31, 2020 and 2019, valuation allowances against deferred tax assets of \$9.1 billion and \$8.1 billion were comprised of cumulative losses, credits and other timing differences, primarily in Germany, Spain and South Korea.

Uncertain Tax Positions The following table summarizes activity of the total amounts of unrecognized tax benefits:

	Years Ended December 31,		
	2020	2019	2018
Balance at beginning of period	\$ 775	\$ 1,341	\$ 1,557
Additions to current year tax positions	435	18	292
Additions to prior years' tax positions	26	13	264
Reductions to prior years' tax positions	(132)	(501)	(244)
Reductions in tax positions due to lapse of statutory limitations	(3)	(8)	(38)
Settlements	(10)	(93)	(450)
Other	(5)	5	(40)
Balance at end of period	<u>\$ 1,086</u>	<u>\$ 775</u>	<u>\$ 1,341</u>

At December 31, 2020 and 2019 there were \$851 million and \$539 million of unrecognized tax benefits that if recognized would favorably affect our effective tax rate in the future. In the years ended December 31, 2020, 2019 and 2018 income tax related interest and penalties were insignificant. At December 31, 2020 and 2019 we had liabilities of \$92 million and \$117 million for income tax related interest and penalties.

At December 31, 2020 it is not possible to reasonably estimate the expected change to the total amount of unrecognized tax benefits in the next twelve months.

Other Matters Income tax returns are filed in multiple jurisdictions and are subject to examination by taxing authorities throughout the world. We have open tax years from 2011 to 2020 with various significant tax jurisdictions. Tax authorities may have the ability to review and adjust net operating loss or tax credit carryforwards that were generated prior to these periods if utilized in an open tax year. These open years contain matters that could be subject to differing interpretations of applicable tax laws and regulations as they relate to the amount, character, timing or inclusion of revenue and expenses or the sustainability of income tax credits for a given audit cycle.

Note 18. Restructuring and Other Initiatives

We have executed various restructuring and other initiatives and we may execute additional initiatives in the future, if necessary, to streamline manufacturing capacity and reduce other costs to improve the utilization of remaining facilities. To the extent these programs involve voluntary separations, a liability is generally recorded at the time offers to employees are accepted. To the extent these programs provide separation benefits in accordance with pre-existing agreements, a liability is recorded once the amount is probable and reasonably estimable. If employees are involuntarily terminated, a liability is generally recorded at the communication date. Related charges are recorded in Automotive and other cost of sales and Automotive and other selling, general and administrative expense.

The following table summarizes the reserves and charges related to restructuring and other initiatives, including postemployment benefit reserves and charges:

	Years Ended December 31,		
	2020	2019	2018
Balance at beginning of period	\$ 564	\$ 1,122	\$ 227
Additions, interest accretion and other	565	629	1,637
Payments	(678)	(1,101)	(600)
Revisions to estimates and effect of foreign currency	(99)	(86)	(142)
Balance at end of period	<u>\$ 352</u>	<u>\$ 564</u>	<u>\$ 1,122</u>

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In the year ended December 31, 2020, restructuring and other initiatives primarily included actions in GMI related to the wind-down of Holden sales, design and engineering operations in Australia and New Zealand, the sale of our vehicle and powertrain manufacturing facilities in Thailand and the execution of a binding term sheet to sell our manufacturing facility in India. We recorded charges of \$683 million in the year ended December 31, 2020, primarily consisting of \$360 million in dealer restructurings, employee separations and supplier claim charges, which are reflected in the table above, and \$323 million in property and intangible asset impairments, inventory provisions, sales allowances and other charges, not reflected in the table above. We also recorded a \$236 million charge to Income tax expense due to the establishment of a valuation allowance against deferred tax assets in Australia and New Zealand in the year ended December 31, 2020. We incurred \$197 million in net cash outflows resulting from these restructuring actions primarily for dealer restructuring payments and employee separation payments, which includes proceeds of \$143 million from the sale of our manufacturing facilities in Thailand, in the year ended December 31, 2020. Holden and Thailand programs were substantially complete at December 31, 2020.

In the year ended December 31, 2019, restructuring and other initiatives primarily included actions related to our announced transformation activities, which include unallocation of products to certain manufacturing facilities and other employee separation programs. We recorded charges of \$1.8 billion, primarily in GMNA, in the year ended December 31, 2019 consisting of \$1.3 billion primarily in non-cash accelerated depreciation and pension curtailment and other charges, not reflected in the table above, and \$535 million primarily in supplier-related charges and employee-related separation charges, which are reflected in the table above. We recorded charges of \$1.3 billion, primarily in GMNA, in the year ended December 31, 2018 consisting of \$1.0 billion in employee separations and other charges, which are reflected in the table above, and \$301 million primarily in non-cash accelerated depreciation, not reflected in the table above. These programs have a total cost since inception of \$3.1 billion and were complete at December 31, 2019. We incurred \$333 million and \$1.1 billion in cash outflows resulting from these restructuring actions, primarily for employee separation payments and supplier-related payments in the years ended December 31, 2020 and 2019. The cash outflows were substantially complete at December 31, 2020.

In the year ended December 31, 2018, restructuring and other initiatives in GMI primarily included the closure of a facility and other restructuring actions in Korea and employee separation programs. We recorded charges of \$1.0 billion related to Korea, net of noncontrolling interests. These charges consisted of \$537 million in non-cash asset impairments and other charges, not reflected in the table above, and \$495 million in employee separation charges, which are reflected in the table above. We incurred \$775 million in cash outflows resulting from these Korea restructuring actions, primarily for employee separations and statutory pension payments in the year ended December 31, 2018. These programs were substantially complete at December 31, 2018.

Note 19. Interest Income and Other Non-Operating Income

	Years Ended December 31,		
	2020	2019	2018
Non-service pension and OPEB income	\$ 1,095	\$ 797	\$ 1,665
Interest income	241	429	335
Licensing agreements income	211	165	296
Revaluation of investments	265	80	258
Other	73	(2)	42
Total interest income and other non-operating income, net	<u>\$ 1,885</u>	<u>\$ 1,469</u>	<u>\$ 2,596</u>

Note 20. Stockholders' Equity and Noncontrolling Interests

Preferred and Common Stock We have 2.0 billion shares of preferred stock and 5.0 billion shares of common stock authorized for issuance. At December 31, 2020 and 2019 we had no shares of preferred stock and 1.4 billion shares of common stock issued and outstanding.

Common Stock Holders of our common stock are entitled to dividends at the sole discretion of our Board of Directors. Our dividends declared per common share were \$0.38, \$1.52 and \$1.52 and our total dividends paid on common stock were \$545 million, \$2.2 billion and \$2.1 billion for the years ended December 31, 2020, 2019 and 2018. Holders of common stock are entitled to one vote per share on all matters submitted to our stockholders for a vote. The liquidation rights of holders of our common stock are secondary to the payment or provision for payment of all our debts and liabilities and to holders of our preferred stock, if any such shares are then outstanding.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

We purchased three million shares of our outstanding common stock for \$90 million and \$100 million in the years ended December 31, 2020 and 2018. We did not purchase shares of our outstanding common stock in the year ended December 31, 2019. Shares repurchased were part of the common stock repurchase program announced in March 2015, which our Board of Directors increased and extended in January 2016 and January 2017.

Warrants At December 31, 2018 we had 15 million warrants outstanding that we issued in July 2009. The warrants have expired but were exercisable at any time prior to July 10, 2019 at an exercise price of \$18.33 per share.

GM Financial Preferred Stock In September 2020, GM Financial issued \$500 million of Fixed-Rate Reset Cumulative Perpetual Preferred Stock, Series C, \$0.01 par value, with a liquidation preference of \$1,000 per share. Dividends will be paid semi-annually when declared starting March 30, 2021 at a fixed rate of 5.70%. The preferred stock is classified as noncontrolling interests in our consolidated financial statements.

In 2018, GM Financial issued \$500 million of Fixed-to-Floating Rate Cumulative Perpetual Preferred Stock, Series B, \$0.01 par value, with a liquidation preference of \$1,000 per share. Dividends are paid semi-annually when declared, which started March 30, 2019 at a fixed rate of 6.50%. The preferred stock is classified as noncontrolling interests in our consolidated financial statements.

Cruise Preferred Shares In 2019, Cruise Holdings issued \$1.2 billion of Cruise Class F Preferred Shares, including \$687 million to General Motors Holdings LLC. All proceeds related to the Cruise Class F Preferred Shares are designated exclusively for working capital and general corporate purposes of Cruise. The Cruise Class F Preferred Shares participate pari passu with holders of Cruise Holdings common stock in any dividends declared. The Cruise Class F Preferred Shares have the right to vote on the election of one director, who is elected by the vote of a majority of the Cruise Holdings common stock and the Cruise Class F Preferred Shares. Prior to an initial public offering, the holders of Cruise Class F Preferred Shares are restricted from transferring the Cruise Class F Preferred Shares until May 7, 2023. The Cruise Class F Preferred Shares convert into common stock of Cruise Holdings, at specified exchange ratios, upon occurrence of an initial public offering. The Cruise Class F Preferred Shares are entitled to receive the greater of their carrying value or a pro-rata share of any proceeds or distributions upon the occurrence of a merger, sale, liquidation, or dissolution of Cruise Holdings. The Cruise Class F Preferred Shares are classified as noncontrolling interests in our consolidated financial statements.

In 2018, Cruise Holdings issued \$900 million of Cruise Preferred Shares to an affiliate of The Vision Fund which subsequently assigned such shares to The Vision Fund. Immediately prior to the issuance of the Cruise Preferred Shares, we invested \$1.1 billion in Cruise Holdings. When Cruise's autonomous vehicles are ready for commercial deployment, The Vision Fund is obligated to purchase additional Cruise Preferred Shares for \$1.35 billion. All proceeds are designated exclusively for working capital and general corporate purposes of Cruise. Dividends are cumulative and accrue at an annual rate of 7.0% and are payable quarterly in cash or in-kind, at Cruise's discretion. The Cruise Preferred Shares are also entitled to participate in Cruise dividends above a defined threshold. Prior to an initial public offering, The Vision Fund is restricted from transferring the Cruise Preferred Shares until June 28, 2025. The Cruise Preferred Shares are classified as noncontrolling interests in our consolidated financial statements.

Cruise Common Shares In 2018, Cruise Holdings issued \$750 million of Class E Common Shares to Honda. All proceeds are designated exclusively for working capital and general corporate purposes of Cruise. At the later of October 3, 2025 or the termination of the commercial agreements between Cruise Holdings and Honda, Cruise Holdings can call all, but not less than all of the Class E Common Shares at an amount equal to the then fair value of Cruise Holdings. The Class E Common Shares are classified as noncontrolling interests in our consolidated financial statements.

GM Korea Preferred Shares In 2018, the Korea Development Bank (KDB) purchased \$720 million of GM Korea's Class B Preferred Shares (GM Korea Preferred Shares). Dividends on the GM Korea Preferred Shares are cumulative and accrue at an annual rate of 1.0%. GM Korea can call the preferred shares at their original issue price six years from the date of issuance and once called, the preferred shares can be converted into common shares of GM Korea at the option of the holder. The GM Korea Preferred Shares are classified as noncontrolling interests in our consolidated financial statements. The KDB investment proceeds can only be used for purposes of funding capital expenditures in GM Korea. In conjunction with the GM Korea Preferred Share issuance we agreed to provide GM Korea future funding, if needed, not to exceed \$2.8 billion through December 31, 2027, inclusive of \$2.0 billion of planned capital expenditures through 2027.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

The following table summarizes the significant components of Accumulated other comprehensive loss:

	Years Ended December 31,		
	2020	2019	2018
Foreign Currency Translation Adjustments			
Balance at beginning of period	\$ (2,278)	\$ (2,250)	\$ (1,606)
Other comprehensive loss and noncontrolling interests before reclassification adjustment, net of tax and impact of adoption of accounting standards(a)(b)	(480)	(56)	(664)
Reclassification adjustment, net of tax(a)	23	28	20
Other comprehensive loss, net of tax(a)	(457)	(28)	(644)
Balance at end of period	<u>\$ (2,735)</u>	<u>\$ (2,278)</u>	<u>\$ (2,250)</u>
Defined Benefit Plans			
Balance at beginning of period	\$ (8,859)	\$ (6,737)	\$ (6,398)
Other comprehensive loss and noncontrolling interests before reclassification adjustment, net of impact of adoption of accounting standards(b)	(2,661)	(2,769)	(580)
Tax benefit	444	463	100
Other comprehensive loss and noncontrolling interests before reclassification adjustment, net of tax and impact of adoption of accounting standards(b)	(2,217)	(2,306)	(480)
Reclassification adjustment, net of tax(a)	422	184	141
Other comprehensive loss, net of tax	(1,795)	(2,122)	(339)
Balance at end of period(c)	<u>\$ (10,654)</u>	<u>\$ (8,859)</u>	<u>\$ (6,737)</u>

(a) The income tax effect was insignificant in the years ended December 31, 2020, 2019 and 2018.

(b) The noncontrolling interests are insignificant in the years ended December 31, 2020, 2019 and 2018.

(c) Primarily consists of unamortized actuarial loss on our defined benefit plans.

GENERAL MOTORS COMPANY AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

Note 21. Earnings Per Share

Basic and diluted earnings (loss) per share are computed by dividing Net income attributable to common stockholders by the weighted-average common shares outstanding in the period. Diluted earnings (loss) per share is computed by giving effect to all potentially dilutive securities that are outstanding.

	Years Ended December 31,		
	2020	2019	2018
Basic earnings per share			
Income from continuing operations	\$ 6,427	\$ 6,732	\$ 8,084
Less: cumulative dividends on subsidiary preferred stock	(180)	(151)	(98)
Income from continuing operations attributable to common stockholders	6,247	6,581	7,986
Loss from discontinued operations, net of tax	—	—	70
Net income attributable to common stockholders	<u>\$ 6,247</u>	<u>\$ 6,581</u>	<u>\$ 7,916</u>
Weighted-average common shares outstanding	1,433	1,424	1,411
Basic earnings per common share – continuing operations	\$ 4.36	\$ 4.62	\$ 5.66
Basic loss per common share – discontinued operations	\$ —	\$ —	\$ 0.05
Basic earnings per common share	\$ 4.36	\$ 4.62	\$ 5.61
Diluted earnings per share			
Income from continuing operations attributable to common stockholders – diluted	\$ 6,247	\$ 6,581	\$ 7,986
Loss from discontinued operations, net of tax – diluted	\$ —	\$ —	\$ 70
Net income attributable to common stockholders – diluted	\$ 6,247	\$ 6,581	\$ 7,916
Weighted-average common shares outstanding – basic	1,433	1,424	1,411
Dilutive effect of warrants and awards under stock incentive plans	9	15	20
Weighted-average common shares outstanding – diluted	<u>1,442</u>	<u>1,439</u>	<u>1,431</u>
Diluted earnings per common share – continuing operations	\$ 4.33	\$ 4.57	\$ 5.58
Diluted loss per common share – discontinued operations	\$ —	\$ —	\$ 0.05
Diluted earnings per common share	\$ 4.33	\$ 4.57	\$ 5.53
Potentially dilutive securities(a)	7	7	9

(a) Potentially dilutive securities attributable to outstanding stock options and RSUs were excluded from the computation of diluted EPS because the securities would have had an antidilutive effect.

Note 22. Discontinued Operations

In 2017, we sold the Opel/Vauxhall Business to PSA Group. We also sold the Fincos to Banque PSA Finance S.A. and BNP Paribas Personal Finance S.A.

Our wholly owned subsidiary (The Seller) agreed to indemnify PSA Group for certain losses resulting from any inaccuracy of the representations and warranties or breaches of our covenants included in the Agreement and for certain other liabilities, including certain emissions and product liabilities. We entered into a guarantee for the benefit of PSA Group and pursuant to which we agreed to guarantee the Seller's obligation to indemnify PSA Group. Certain of these indemnification obligations are subject to time limitations, thresholds and/or caps as to the amount of required payments.

Although the sale reduced our new vehicle presence in Europe, we may still be impacted by actions taken by regulators related to vehicles sold before the sale. In Germany, the Kraftfahrt-Bundesamt (KBA) issued an order in November 2019, which converted a voluntary recall initiated by Opel in 2017 and 2018 into a mandatory recall for allegedly failing to comply with certain emissions regulations. However, because the overwhelming majority of vehicles have already received KBA-approved software calibration updates pursuant to the voluntary recall, the number of vehicles subject to the mandatory recall is insignificant. The Seller may also be obligated to indemnify PSA Group or otherwise absorb costs and expenses resulting from

GENERAL MOTORS COMPANY AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

the foregoing as well as certain related potential litigation costs, settlements, judgments and potential fines. In addition, at the KBA's request, the German authorities re-opened a separate criminal investigation related to this matter that had previously been closed with no action. At December 31, 2020, we have accrued an insignificant amount relating to these matters.

The results of the European Business operations recorded in Loss from discontinued operations, net were \$70 million in the year ended December 31, 2018. There was no income or loss from discontinued operations in the years ended December 31, 2020 and 2019.

We continue to purchase from and supply to PSA Group certain vehicles, parts and engineering services for a period of time following the sale. The following table summarizes transactions with the Opel/Vauxhall Business:

	Years Ended December 31,		
	2020	2019	2018
Net sales and revenue(a)	\$ 144	\$ 1,129	\$ 1,939
Purchases and expenses(a)	\$ 392	\$ 825	\$ 1,422
Cash payments(b)	\$ 630	\$ 975	\$ 1,849
Cash receipts(b)	\$ 252	\$ 1,408	\$ 2,310

(a) Included in Income from continuing operations.

(b) Included in Net cash provided by operating activities.

Note 23. Stock Incentive Plans

GM Stock Incentive Awards We grant to certain employees RSUs, RSAs, PSUs and stock options (collectively, stock incentive awards) under our 2016 Equity Incentive Plan and 2020 Long-Term Incentive Plan (LTIP) and prior to the 2020 LTIP, under our 2017 and 2014 LTIP. The 2020 LTIP was approved by stockholders in June 2020. Any new awards granted after the approval of the 2020 LTIP in June 2020 will be issued under the 2020 LTIP. To the extent any shares remain available for issuance under the 2017 LTIP, the 2016 Equity Incentive Plan, and/or the 2014 LTIP, such shares will only be used to settle outstanding awards that were previously granted under such plans prior to June 2020. Shares awarded under the plans are subject to forfeiture if the participant leaves the company for reasons other than those permitted under the plans such as retirement, death or disability.

RSU awards granted either cliff vest or ratably vest generally over a three-year service period, as defined in the terms of each award. PSU awards vest at the end of a three-year performance period, based on performance criteria determined by the Executive Compensation Committee of the Board of Directors at the time of award. The number of shares earned may equal, exceed or be less than the targeted number of shares depending on whether the performance criteria are met, surpassed or not met. Stock options expire 10 years from the grant date. Our performance-based stock options vest ratably over 55 months based on the performance of our common stock relative to that of a specified peer group. Our service-based stock options vest ratably over 19 months to three years.

In connection with our acquisition of Cruise Automation, Inc. in May 2016, RSAs and PSUs in common shares of GM were granted to employees of Cruise Holdings. The RSAs vest ratably, generally over a three-year service period. The PSUs are contingent upon achievement of specific technology and commercialization milestones.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

	Shares (in millions)	Weighted-Average Grant Date Fair Value	Weighted-Average Remaining Contractual Term in Years
Units outstanding at January 1, 2020	41.5	\$ 19.17	0.9
Granted	13.3	\$ 22.50	
Settled	(13.5)	\$ 19.31	
Forfeited or expired	(2.7)	\$ 27.23	
Units outstanding at December 31, 2020(a)	38.6	\$ 19.84	0.9

(a) Includes the target amount of PSUs.

Our weighted-average assumptions used to value our stock options are a dividend yield of 4.25%, 3.90% and 3.69%, expected volatility of 26.2%, 28.0% and 28.0%, a risk-free interest rate of 1.44%, 2.62% and 2.73%, and an expected option life of 5.97, 6.00 and 5.98 years for options issued during the years ended December 31, 2020, 2019 and 2018. The expected volatility is based on the average of the implied volatility of publicly traded options for our common stock.

Total compensation expense related to the above awards was \$351 million, \$456 million and \$316 million in the years ended December 31, 2020, 2019 and 2018.

At December 31, 2020, the total unrecognized compensation expense for nonvested equity awards granted was \$213 million. This expense is expected to be recorded over a weighted-average period of 1.3 years. The total fair value of stock incentive awards vested was \$275 million, \$287 million and \$317 million in the years ended December 31, 2020, 2019 and 2018.

Cruise Stock Incentive Awards In addition to the awards noted above, RSUs were granted to Cruise employees in common shares of Cruise Holdings in the years ended December 31, 2020, 2019 and 2018. Stock options were granted in common shares of Cruise Holdings in the years ended December 31, 2019 and 2018. There were no Cruise stock options granted in the year ended December 31, 2020. These awards were granted under the 2018 Employee Incentive Plan approved by Cruise Holdings' Board of Directors in August 2018. Shares awarded under the plan are subject to forfeiture if the participant leaves the company for reasons other than those permitted under the plan. Stock options vest ratably over four to 10 years, as defined in the terms of each award. Stock options expire 10 years from the grant date. RSU awards granted vest upon the satisfaction of both a service condition and a liquidity condition. The service condition for the majority of these awards is satisfied over four years. The liquidity condition is satisfied upon the earlier of the date of a change in control transaction or the consummation of an initial public offering.

Total compensation expense related to Cruise Holdings' share-based awards was insignificant for the years ended December 31, 2020, 2019 and 2018. No share-based compensation expense had been recognized for the RSUs because the liquidity condition described above was not met at December 31, 2020, 2019 and 2018. Total unrecognized compensation expense for Cruise Holdings' nonvested equity awards granted was \$863 million at December 31, 2020, which was primarily comprised of the RSUs for which the liquidity condition had not been met. Total units outstanding were 79.3 million at December 31, 2020. The expense related to stock options is expected to be recorded over a weighted-average period of 7.1 years. The timing of the expense related to RSUs will depend upon the date of the satisfaction of the liquidity condition.

Note 24. Segment Reporting

We analyze the results of our business through the following reportable segments: GMNA, GMI, Cruise and GM Financial. The European Business is presented as discontinued operations and is excluded from our segment results for all periods presented. The European Business was previously reported as our GM Europe segment and part of GM Financial. The chief operating decision-maker evaluates the operating results and performance of our automotive segments and Cruise through EBIT-adjusted, which is presented net of noncontrolling interests. The chief operating decision-maker evaluates GM Financial through EBT-adjusted because interest income and interest expense are part of operating results when assessing and measuring the operational and financial performance of the segment. Each segment has a manager responsible for executing our strategic initiatives. While not all vehicles within a segment are individually profitable on a fully allocated cost basis, those vehicles attract customers to dealer showrooms and help maintain sales volumes for other, more profitable vehicles and contribute towards meeting required fuel efficiency standards. As a result of these and other factors, we do not manage our business on an individual brand or vehicle basis.

GENERAL MOTORS COMPANY AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

Substantially all of the trucks, crossovers, cars and automobile parts produced are marketed through retail dealers in North America and through distributors and dealers outside of North America, the substantial majority of which are independently owned. In addition to the products sold to dealers for consumer retail sales, trucks, crossovers and cars are also sold to fleet customers, including daily rental car companies, commercial fleet customers, leasing companies and governments. Fleet sales are completed through the dealer network and in some cases directly with fleet customers. Retail and fleet customers can obtain a wide range of after-sale vehicle services and products through the dealer network, such as maintenance, light repairs, collision repairs, vehicle accessories and extended service warranties.

GMNA meets the demands of customers in North America with vehicles developed, manufactured and/or marketed under the Buick, Cadillac, Chevrolet and GMC brands. GMI primarily meets the demands of customers outside North America with vehicles developed, manufactured and/or marketed under the Buick, Cadillac, Chevrolet, GMC, and Holden brands. We also have equity ownership stakes in entities that meet the demands of customers in other countries, primarily China, with vehicles developed, manufactured and/or marketed under the Baojun, Buick, Cadillac, Chevrolet and Wuling brands. Cruise is our global segment responsible for the development and commercialization of autonomous vehicle technology, and includes autonomous vehicle-related engineering and other costs.

Our automotive interest income and interest expense, legacy costs from the Opel/Vauxhall Business (primarily pension costs), corporate expenditures and certain nonsegment specific revenues and expenses are recorded centrally in Corporate. Corporate assets primarily consist of cash and cash equivalents, marketable debt securities, PSA warrants and intercompany balances. Retained net underfunded pension liabilities related to the European Business are also recorded in Corporate. All intersegment balances and transactions have been eliminated in consolidation.

The following tables summarize key financial information by segment:

	At and For the Year Ended December 31, 2020								
	GMNA	GMI	Corporate	Eliminations	Total Automotive	Cruise	GM Financial	Eliminations/ Reclassifications	Total
Net sales and revenue	\$ 96,733	\$ 11,586	\$ 350		\$ 108,669	\$ 103	\$ 13,831	\$ (118)	\$ 122,485
Earnings (loss) before interest and taxes-adjusted	\$ 9,071	\$ (528)	\$ (634)		\$ 7,909	\$ (887)	\$ 2,702	\$ (14)	\$ 9,710
Adjustments(a)	\$ (99)	\$ (683)	\$ 130		\$ (652)	\$ —	\$ —	\$ —	\$ (652)
Automotive interest income									241
Automotive interest expense									(1,098)
Net (loss) attributable to noncontrolling interests									(106)
Income before income taxes									8,095
Income tax expense									(1,774)
Income from continuing operations									6,321
Loss from discontinued operations, net of tax									—
Net loss attributable to noncontrolling interests									106
Net income attributable to stockholders									<u>\$ 6,427</u>
Equity in net assets of nonconsolidated affiliates	\$ 242	\$ 6,583	\$ —	\$ —	\$ 6,825	\$ —	\$ 1,581	\$ —	\$ 8,406
Goodwill and intangibles	\$ 2,346	\$ 806	\$ —	\$ —	\$ 3,152	\$ 735	\$ 1,343	\$ —	\$ 5,230
Total assets	\$ 114,137	\$ 23,019	\$ 39,933	\$ (57,464)	\$ 119,625	\$ 3,625	\$ 113,410	\$ (1,466)	\$ 235,194
Expenditures for property	\$ 4,501	\$ 729	\$ 21	\$ —	\$ 5,251	\$ 15	\$ 34	\$ —	\$ 5,300
Depreciation and amortization	\$ 4,739	\$ 624	\$ 25	\$ —	\$ 5,388	\$ 43	\$ 7,245	\$ —	\$ 12,676
Impairment charges	\$ 20	\$ 99	\$ —	\$ —	\$ 119	\$ 20	\$ —	\$ —	\$ 139
Equity income	\$ 17	\$ 510	\$ —	\$ —	\$ 527	\$ —	\$ 147	\$ —	\$ 674

(a) Consists of restructuring charges related to Cadillac dealer strategy in GMNA; restructuring and other charges primarily in Australia, New Zealand, Thailand and India in GMI; and ignition switch-related legal matters in Corporate.

GENERAL MOTORS COMPANY AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

At and For the Year Ended December 31, 2019

	GMNA	GMI	Corporate	Eliminations	Total Automotive	Cruise	GM Financial	Eliminations/Reclassifications	Total
Net sales and revenue	\$ 106,366	\$ 16,111	\$ 220		\$ 122,697	\$ 100	\$ 14,554	\$ (114)	\$ 137,237
Earnings (loss) before interest and taxes-adjusted	\$ 8,204	\$ (202)	\$ (691)		\$ 7,311	\$ (1,004)	\$ 2,104	\$ (18)	\$ 8,393
Adjustments(a)	\$ (1,618)	\$ 1,081	\$ (2)		\$ (539)	\$ —	\$ —	\$ —	\$ (539)
Automotive interest income									429
Automotive interest expense									(782)
Net (loss) attributable to noncontrolling interests									(65)
Income before income taxes									7,436
Income tax expense									(769)
Income from continuing operations									6,667
Loss from discontinued operations, net of tax									—
Net loss attributable to noncontrolling interests									65
Net income attributable to stockholders									\$ 6,732
Equity in net assets of nonconsolidated affiliates	\$ 84	\$ 7,023	\$ —	\$ —	\$ 7,107	\$ —	\$ 1,455	\$ —	\$ 8,562
Goodwill and intangibles	\$ 2,459	\$ 888	\$ 1	\$ —	\$ 3,348	\$ 634	\$ 1,355	\$ —	\$ 5,337
Total assets	\$ 109,290	\$ 24,969	\$ 32,365	\$ (50,244)	\$ 116,380	\$ 4,230	\$ 108,881	\$ (1,454)	\$ 228,037
Expenditures for property	\$ 6,305	\$ 1,096	\$ 84	\$ —	\$ 7,485	\$ 60	\$ 47	\$ —	\$ 7,592
Depreciation and amortization	\$ 6,112	\$ 533	\$ 46	\$ (2)	\$ 6,689	\$ 21	\$ 7,350	\$ —	\$ 14,060
Impairment charges	\$ 15	\$ 7	\$ —	\$ —	\$ 22	\$ 36	\$ —	\$ —	\$ 58
Equity income (loss)	\$ 8	\$ 1,123	\$ (29)	\$ —	\$ 1,102	\$ —	\$ 166	\$ —	\$ 1,268

(a) Consists of restructuring and other charges related to transformation activities of \$1.6 billion in GMNA and \$115 million in GMI; a benefit of \$1.4 billion related to the retrospective recoveries of indirect taxes in Brazil; partially offset by losses of \$164 million related to the FAW-GM divestiture in GMI.

At and For the Year Ended December 31, 2018

	GMNA	GMI	Corporate	Eliminations	Total Automotive	Cruise	GM Financial	Eliminations	Total
Net sales and revenue	\$ 113,792	\$ 19,148	\$ 203		\$ 133,143	\$ —	\$ 14,016	\$ (110)	\$ 147,049
Earnings (loss) before interest and taxes-adjusted	\$ 10,769	\$ 423	\$ (570)		\$ 10,622	\$ (728)	\$ 1,893	\$ (4)	\$ 11,783
Adjustments(a)	\$ (1,236)	\$ (1,212)	\$ (457)		\$ (2,905)	\$ —	\$ —	\$ —	\$ (2,905)
Automotive interest income									335
Automotive interest expense									(655)
Net (loss) attributable to noncontrolling interests									(9)
Income before income taxes									8,549
Income tax expense									(474)
Income from continuing operations									8,075
Loss from discontinued operations, net of tax									(70)
Net loss attributable to noncontrolling interests									9
Net loss attributable to stockholders									\$ 8,014
Equity in net assets of nonconsolidated affiliates	\$ 75	\$ 7,761	\$ 24	\$ —	\$ 7,860	\$ —	\$ 1,355	\$ —	\$ 9,215
Goodwill and intangibles	\$ 2,623	\$ 928	\$ 1	\$ —	\$ 3,552	\$ 671	\$ 1,356	\$ —	\$ 5,579
Total assets	\$ 109,763	\$ 24,911	\$ 31,694	\$ (50,690)	\$ 115,678	\$ 3,195	\$ 109,953	\$ (1,487)	\$ 227,339
Expenditures for property	\$ 7,784	\$ 883	\$ 21	\$ (2)	\$ 8,686	\$ 15	\$ 60	\$ —	\$ 8,761
Depreciation and amortization	\$ 4,995	\$ 562	\$ 50	\$ (3)	\$ 5,604	\$ 7	\$ 7,531	\$ —	\$ 13,142
Impairment charges	\$ 55	\$ 466	\$ 6	\$ —	\$ 527	\$ —	\$ —	\$ —	\$ 527
Equity income	\$ 8	\$ 1,972	\$ —	\$ —	\$ 1,980	\$ —	\$ 183	\$ —	\$ 2,163

(a) Consists of restructuring and other charges related to transformation activities of \$1.2 billion in GMNA; charges of \$1.2 billion related to restructuring actions in Korea and other countries in GMI; and of \$440 million for ignition switch-related legal matters and other insignificant charges in Corporate.

GENERAL MOTORS COMPANY AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

Automotive revenue is attributed to geographic areas based on the country of sale. GM Financial revenue is attributed to the geographic area where the financing is originated. The following table summarizes information concerning principal geographic areas:

	At and For the Years Ended December 31,					
	2020		2019		2018	
	Net Sales and Revenue	Long-Lived Assets	Net Sales and Revenue	Long-Lived Assets	Net Sales and Revenue	Long-Lived Assets
Automotive						
U.S.	\$ 89,204	\$ 24,932	\$ 97,887	\$ 25,401	\$ 104,413	\$ 25,625
Non-U.S.	19,469	12,516	24,810	13,190	28,632	13,263
GM Financial						
U.S.	12,227	36,773	12,727	39,509	12,169	41,334
Non-U.S.	1,585	3,230	1,813	2,772	1,835	2,476
Total consolidated	<u>\$ 122,485</u>	<u>\$ 77,451</u>	<u>\$ 137,237</u>	<u>\$ 80,872</u>	<u>\$ 147,049</u>	<u>\$ 82,698</u>

No individual country other than the U.S. represented more than 10% of our total net sales and revenue or long-lived assets.

Note 25. Supplemental Information for the Consolidated Statements of Cash Flows

The following table summarizes the sources (uses) of cash provided by Change in other operating assets and liabilities and Cash paid for income taxes and interest:

	Years Ended December 31,		
	2020	2019	2018
Change in other operating assets and liabilities			
Accounts receivable	\$ (1,341)	\$ (563)	\$ 492
Wholesale receivables funded by GM Financial, net	2,744	663	(2,606)
Inventories	(104)	(761)	399
Automotive equipment on operating leases	53	274	748
Change in other assets	68	(1,550)	(529)
Accounts payable	42	(492)	(537)
Income taxes payable	130	213	(75)
Accrued and other liabilities	(1,991)	(1,573)	732
Total	<u>\$ (399)</u>	<u>\$ (3,789)</u>	<u>\$ (1,376)</u>
Cash paid for income taxes and interest			
Cash paid for income taxes, net	\$ 719	\$ 689	\$ 660
Cash paid for interest (net of amounts capitalized) – Automotive	\$ 1,011	\$ 739	\$ 656
Cash paid for interest (net of amounts capitalized) – GM Financial	2,947	3,475	2,941
Total cash paid for interest (net of amounts capitalized)	<u>\$ 3,958</u>	<u>\$ 4,214</u>	<u>\$ 3,597</u>

Note 26. Subsequent Event

In January 2021, Cruise Holdings issued Class G Preferred Shares in exchange for \$2.2 billion from Microsoft and other investors, including \$1.0 billion from General Motors Holdings LLC. As a result, Cruise Holdings has fallen below the ownership threshold required for inclusion in our U.S. consolidated income tax returns. In the three months ended March 31, 2021, we will establish a valuation allowance of approximately \$350 million against deferred tax assets that may not be realizable. In addition, we, Cruise Holdings and Microsoft entered into a long-term strategic relationship to accelerate the commercialization of self-driving vehicles with Microsoft being the preferred cloud provider.

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GENERAL MOTORS COMPANY AND SUBSIDIARIES

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

None.

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Item 9A. Controls and Procedures

Disclosure Controls and Procedures We maintain disclosure controls and procedures designed to provide reasonable assurance that information required to be disclosed in reports filed under the Exchange Act is recorded, processed, summarized and reported within the specified time periods and accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate, to allow timely decisions regarding required disclosures.

Our management, with the participation of our CEO and CFO, evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) or 15d-15(e) promulgated under the Exchange Act) as of December 31, 2020 as required by paragraph (b) of Rules 13a-15 or 15d-15. Based on this evaluation, our CEO and CFO concluded that our disclosure controls and procedures were effective as of December 31, 2020.

Management's Report on Internal Control over Financial Reporting Our management is responsible for establishing and maintaining effective internal control over financial reporting as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act. This system is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of consolidated financial statements for external purposes in accordance with U.S. GAAP. Because of the inherent limitations of internal control over financial reporting, including the possibility of collusion or improper management override of controls, misstatements due to error or fraud may not be prevented or detected on a timely basis.

Our management performed an assessment of the effectiveness of our internal control over financial reporting at December 31, 2020, utilizing the criteria discussed in the "Internal Control – Integrated Framework (2013)" issued by the Committee of Sponsoring Organizations of the Treadway Commission. The objective of this assessment was to determine whether our internal control over financial reporting was effective as of December 31, 2020. Based on management's assessment, we have concluded that our internal control over financial reporting was effective as of December 31, 2020.

The effectiveness of our internal control over financial reporting has been audited by Ernst & Young LLP, an independent registered public accounting firm, as stated in its report included herein.

Changes in Internal Control over Financial Reporting There have not been any changes in our internal control over financial reporting during the three months ended December 31, 2020 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting. However, due to the COVID-19 pandemic, we are monitoring our control environment with increased vigilance to ensure changes as a result of physical distancing are addressed and all increased risks are mitigated. For additional information refer to Part I, Item 1A. Risk Factors.

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GENERAL MOTORS COMPANY AND SUBSIDIARIES

Item 9B. Other Information

None.

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PART III

Items 10, 11, 12, 13 and 14

Information required by Items 10, 11, 12, 13 and 14 of this Form 10-K is incorporated by reference from our definitive Proxy Statement for our 2021 Annual Meeting of Stockholders, which will be filed with the SEC, pursuant to Regulation 14A, not later than 120 days after the end of the 2020 fiscal year, all of which information is hereby incorporated by reference in, and made part of, this Form 10-K, except disclosure of our executive officers, which is included in Part I, Item 1 of this report.

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GENERAL MOTORS COMPANY AND SUBSIDIARIES

PART IV

ITEM 15. Exhibit and Financial Statement Schedules

- (a) 1. All Financial Statements and Supplemental Information
2. Financial Statement Schedules

All financial statement schedules are omitted as the required information is inapplicable or the information is presented in the consolidated financial statements and notes thereto in Item 8.

3. Exhibits

- (b) Exhibits

Exhibit Number	Exhibit Name	
2.1	Master Agreement, dated as of March 5, 2017, between General Motors Holdings LLC and Peugeot S.A., incorporated by reference to Exhibit 2.1 to the Quarterly Report on Form 10-Q of General Motors Company filed April 28, 2017	Incorporated by Reference
2.2	Purchase Agreement dated as of May 31, 2018, by and among General Motors Holdings LLC, GM Cruise Holdings LLC, and Softbank Vision Fund (AIV M1), L.P. incorporated by reference to Exhibit 2.1 to the Quarterly Report on Form 10-Q of General Motors Company filed July 25, 2018	Incorporated by Reference
2.3	Purchase Agreement by and between GM Cruise Holdings LLC and Honda Motor Co., LTD., dated October 3, 2018, incorporated by reference to Exhibit 2.3 to the Annual Report on Form 10-K of General Motors Company filed February 6, 2019	Incorporated by Reference
3.1	Restated Certificate of Incorporation of General Motors Company dated December 7, 2010, incorporated by reference to Exhibit 3.2 to the Current Report on Form 8-K of General Motors Company filed December 13, 2010	Incorporated by Reference
3.2	General Motors Company Amended and Restated Bylaws, as amended August 14, 2018, incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K of General Motors Company filed August 20, 2018	Incorporated by Reference
4.1	Description of Securities, incorporated by reference to Exhibit 4.1 to the Annual Report on Form 10-K of General Motors Company filed February 5, 2020	Incorporated by Reference
4.2	Indenture, dated as of September 27, 2013, between General Motors Company and the Bank of New York Mellon, as Trustee, incorporated by reference to Exhibit 4.2 to the Registration Statement on Form S-3 of General Motors Company filed April 30, 2014	Incorporated by Reference
4.3	First Supplemental Indenture, dated as of September 27, 2013 to the Indenture dated as of September 27, 2013 between General Motors Company and the Bank of New York Mellon, as Trustee, incorporated by reference to Exhibit 4.3 to the Registration Statement on Form S-4 of General Motors Company filed May 22, 2014	Incorporated by Reference
4.4	Second Supplemental Indenture, dated as of November 12, 2014 to the Indenture dated as of September 27, 2013 between General Motors Company and the Bank of New York Mellon, as Trustee, incorporated by reference to Exhibit 4.4 to the Current Report on Form 8-K of General Motors Company filed November 12, 2014	Incorporated by Reference
4.5	Third Supplemental Indenture, dated as of February 23, 2016, to the Indenture, dated as of September 27, 2013, between General Motors Company, as issuer, and The Bank of New York Mellon, as Trustee, incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K of General Motors Company filed February 23, 2016	Incorporated by Reference
4.6	Fourth Supplemental Indenture, dated as of August 7, 2017, to the Indenture, dated as of September 27, 2013, between General Motors Company, as issuer, and The Bank of New York Mellon, as Trustee, incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K of General Motors Company filed August 8, 2017	Incorporated by Reference
4.7	Fifth Supplemental Indenture, dated as of September 10, 2018, to the Indenture, dated as of September 27, 2013, between General Motors Company, as issuer, and The Bank of New York Mellon, as Trustee, incorporated by reference to Exhibit 4.2 to the Current Report on Form 8-K of General Motors Company filed September 10, 2018	Incorporated by Reference
4.8	Sixth Supplement Indenture, dated as of May 12, 2020, to the Indenture. dated as of September 27, 2013, between General Motors Company, as issuer, and The Bank of New York Mellon, as Trustee, incorporated by reference to Exhibit 4.2 to the Current Report on Form 8-K of General Motors Company filed May 12, 2020	Incorporated by Reference
4.9	Calculation Agency Agreement, dated as of September 10, 2018 between General Motors Company and the Bank of New York Mellon, as calculation agent, incorporated by reference to Exhibit 4.3 to the Current Report on Form 8-K of General Motors Company filed September 10, 2018	Incorporated by Reference

GENERAL MOTORS COMPANY AND SUBSIDIARIES

Exhibit Number	Exhibit Name	
10.1	Stockholders Agreement, dated as of October 15, 2009, among General Motors Company, the United States Department of the Treasury, Canada GEN Investment Corporation (fka 7176384 Canada Inc.), the UAW Retiree Medical Benefits Trust, and, for limited purposes, General Motors LLC, incorporated by reference to Exhibit 10.8 to the Current Report on Form 8-K of General Motors Company filed November 16, 2009	Incorporated by Reference
10.2*	Form of Compensation Statement, incorporated by reference to Exhibit 10.14 to the Annual Report on Form 10-K of General Motors Company filed April 7, 2010	Incorporated by Reference
10.3*	General Motors Company Executive Retirement Plan, with modifications through October 10, 2012, incorporated by reference to Exhibit 10.12 to the Annual Report on Form 10-K of General Motors Company filed February 15, 2013	Incorporated by Reference
10.4*	Amendment No. 1 to General Motors Company Executive Retirement Plan, with modifications through October 10, 2012, incorporated by reference to Exhibit 10.2 to the Current Report on Form 8-K of General Motors Company filed February 3, 2016	Incorporated by Reference
10.5*	General Motors Company 2014 Long-Term Incentive Plan, incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K of General Motors Company filed June 12, 2014	Incorporated by Reference
10.6*	Form of Non-Qualified Stock Option Agreement under the 2014 Long-Term Incentive Plan, incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K of General Motors Company filed July 30, 2015	Incorporated by Reference
10.7*	General Motors Company 2016 Equity Incentive Plan, incorporated by reference to Exhibit 99.1 to the Registration Statement on Form S-8 of General Motors Company filed May 13, 2016	Incorporated by Reference
10.8*	General Motors Company Vehicle Operations - Senior Management Vehicle Program (SMVP) Supplement, revised December 15, 2005, incorporated by reference to Exhibit 10(g) to the Annual Report on Form 10-K of Motors Liquidation Company filed March 28, 2006	Incorporated by Reference
10.9*	Form of Director and Officer Indemnification Agreement, incorporated by reference to Exhibit 10.6 to the Quarterly Report on Form 10-Q of General Motors Company filed April 21, 2016	Incorporated by Reference
10.10*	General Motors Company 2017 Short-Term Incentive Plan, incorporated by reference to Exhibit 10.25 to the Annual Report on Form 10-K of General Motors Company filed February 6, 2018	Incorporated by Reference
10.11*	General Motors Company 2017 Long-Term Incentive Plan, incorporated by reference to Exhibit 4.1 to the Registration Statement on Form S-8 of General Motors Company filed June 16, 2017	Incorporated by Reference
10.12*	Form of Performance Share Unit Award Agreement under the General Motors Company 2017 Long-Term Incentive Plan, incorporated by reference to Exhibit 10.1 to the Quarterly Report on Form 10-Q of General Motors Company filed April 26, 2018	Incorporated by Reference
10.13*	Form of Non-Qualified Stock Option Award Agreement under the General Motors Company 2017 Long-Term Incentive Plan, incorporated by reference to Exhibit 10.2 to the Quarterly Report on Form 10-Q of General Motors Company filed April 26, 2018	Incorporated by Reference
10.14*	Form of Performance Share Unit Award Agreement under the General Motors Company 2017 Long-Term Incentive Plan, incorporated by reference to Exhibit 10.1 to the Quarterly Report on Form 10-Q of General Motors Company filed May 6, 2020	Incorporated by Reference
10.15*	Form of Non-Qualified Stock Option Award Agreement under the General Motors Company 2017 Long-Term Incentive Plan, incorporated by reference to Exhibit 10.2 to the Quarterly Report on Form 10-Q of General Motors Company filed May 6, 2020	Incorporated by Reference
10.16*	Form of Restricted Stock Unit Award Agreement under the General Motors Company 2017 Long-Term Incentive Plan, incorporated by reference to Exhibit 10.5 to the Quarterly Report on Form 10-Q of General Motors Company filed July 29, 2020	Incorporated by Reference
10.17*	Amended and Restated General Motors LLC U.S. Executive Severance Program, incorporated by reference to Exhibit 10.23 to the Annual Report on Form 10-K of General Motors Company filed February 6, 2019	Incorporated by Reference
10.18*	Form of Time Sharing Agreement, incorporated by reference to Exhibit 10.2 to the Quarterly Report on Form 10-Q of General Motors Company filed October 29, 2019	Incorporated by Reference
10.19*	The General Motors Company Deferred Compensation Plan for Non-Employee Directors, incorporated by reference to Exhibit 10.19 to the Annual Report on Form 10-K of General Motors Company filed February 5, 2020	Incorporated by Reference
10.20*	General Motors Company 2020 Long-Term Incentive Plan, incorporated by reference to Exhibit 4.1 to the Registration Statement on Form S-8 of General Motors Company filed June 25, 2020	Incorporated by Reference
10.21*	Form of Performance Share Unit Award Agreement No.1 under the General Motors Company 2020 Long-Term Incentive Plan	Filed Herewith
10.22*	Form of Performance Share Unit Award Agreement No.2 under the General Motors Company 2020 Long-Term Incentive Plan	Filed Herewith
10.23*	Form of Non-Qualified Stock Option Award Agreement under the General Motors Company 2020 Long-Term Incentive Plan	Filed Herewith

GENERAL MOTORS COMPANY AND SUBSIDIARIES

Exhibit Number	Exhibit Name	
10.24*	Form of Restricted Stock Unit Award Agreement under the General Motors Company 2020 Long-Term Incentive Plan	Filed Herewith
10.25†	Amended and Restated Master Agreement, dated as of December 19, 2012, between General Motors Holdings LLC and Peugeot S.A., incorporated by reference to Exhibit 10.24 to the Annual Report on Form 10-K of General Motors Company filed February 6, 2014	Incorporated by Reference
10.26	Amendment, dated May 2, 2017 to the Master Agreement between General Motors Holdings, LLC and Peugeot S.A., incorporated by reference to Exhibit 10.4 to the Quarterly Report on Form 10-Q of General Motors Company filed July 25, 2017	Incorporated by Reference
10.27	Amendment Number 2, dated July 30, 2017, to the Master Agreement between General Motors Holdings, LLC and Peugeot S.A., incorporated by reference to Exhibit 10.1 to the Quarterly Report on Form 10-Q of General Motors Company filed October 24, 2017	Incorporated by Reference
10.28	Amendment Number 3, dated October 30, 2017, to the Master Agreement between General Motors Holdings, LLC and Peugeot S.A., incorporated by reference to Exhibit 10.31 to the Annual Report on Form 10-K of General Motors Company filed February 6, 2018	Incorporated by Reference
10.29†	Third Amended and Restated 3-Year Revolving Credit Agreement, dated as of April 18, 2018, among General Motors Company, General Motors Financial Company, Inc., GM Global Treasury Centre Limited, General Motors do Brasil Ltda., the subsidiary borrowers from time to time parties thereto, the several lenders from time to time parties thereto, JPMorgan Chase Bank, N.A., as administrative agent, and Citibank, N.A., as syndication agent, incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K of General Motors Company filed April 20, 2018	Incorporated by Reference
10.30	Amendment No. 1, dated April 24, 2020, to the Third Amended and Restated 3-Year Revolving Credit Agreement, dated April 18, 2018, among General Motors Company, General Motors Financial Company, Inc., General Motors do Brasil Ltda., the subsidiary borrowers from time to time parties thereto, the several lenders from time to time parties thereto, JPMorgan Chase Bank, N.A., as administrative agent, and Citibank, N.A., as syndication agent, incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K of General Motors Company filed April 27, 2020	Incorporated by Reference
10.31†	Third Amended and Restated 5-Year Revolving Credit Agreement, dated as of April 18, 2018, among General Motors Company, General Motors Financial Company, Inc., GM Global Treasury Centre Limited, General Motors do Brasil Ltda., the subsidiary borrowers from time to time parties thereto, the several lenders from time to time parties thereto, JPMorgan Chase Bank, N.A., as administrative agent, and Citibank, N.A., as syndication agent, incorporated by reference to Exhibit 10.2 to the Current Report on Form 8-K of General Motors Company filed April 20, 2018	Incorporated by Reference
10.32†	3-Year Revolving Credit Agreement among General Motors Company, the several lenders from time to time parties thereto, JPMorgan Chase Bank, N.A., as administrative agent, and Citibank, N.A., as syndication agent, incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K of General Motors Company filed January 14, 2019	Incorporated by Reference
10.33†	Second Amended and Restated 364-Day Revolving Credit Agreement, dated as of April 14, 2020, among General Motors Company, General Motors Financial Company, Inc., the subsidiary borrowers from time to time parties thereto, the several lenders from time to time parties thereto, JPMorgan Chase Bank, N.A., as administrative agent, and Citibank, N.A., as syndication agent, incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K of General Motors Company filed April 17, 2020	Incorporated by Reference
10.34	364-Day Revolving Credit Agreement, dated May 13, 2020, by and among General Motors Company, the subsidiary borrowers from time to time parties thereto, the several lenders from time to time parties thereto, JPMorgan Chase Bank, N.A., as administrative agent, and Citibank, N.A., as syndication agent, incorporated by reference to Exhibit 10.1 of the Current Report on Form 8-K of General Motors Company filed May 13, 2020	Incorporated by Reference
10.35	Fifth Amended and Restated Limited Liability Company Agreement of GM Cruise Holdings LLC, dated December 18, 2019, incorporated by reference to Exhibit 10.28 to the Annual Report on Form 10-K of General Motors Company filed February 5, 2020	Incorporated by Reference
21	Subsidiaries and Joint Ventures of the Registrant as of December 31, 2020	Filed Herewith
23	Consent of Ernst & Young LLP	Filed Herewith
24	Power of Attorney for Directors of General Motors Company	Filed Herewith
31.1	Section 302 Certification of the Chief Executive Officer	Filed Herewith
31.2	Section 302 Certification of the Chief Financial Officer	Filed Herewith
32	Certification Pursuant to 18 U.S.C. Section 1350, As Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002	Furnished with this Report
101	The following financial information from the Company's Annual Report on Form 10-K for the year ended December 31, 2020 formatted in Inline Extensible Business Reporting Language (iXBRL) includes: (i) the Consolidated Income Statements, (ii) the Consolidated Statements of Comprehensive Income, (iii) the Consolidated Balance Sheets, (iv) the Consolidated Statements of Cash Flows, (v) the Consolidated Statements of Equity and (vi) Notes to the Consolidated Financial Statements	Filed Herewith

GENERAL MOTORS COMPANY AND SUBSIDIARIES

Exhibit Number	Exhibit Name	Filed Herewith
104	The cover page from the Company's Annual Report on Form 10-K for the year ended December 31, 2020, formatted as Inline XBRL and contained in Exhibit 101	Filed Herewith

† Certain confidential portions have been omitted pursuant to a granted request for confidential treatment, which has been separately filed with the SEC.

* Management contracts and compensatory plans and arrangements required to be filed as exhibits pursuant to Item 15(b) of this Report.

* * * * *

Item 16. Form 10-K Summary

None.

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GENERAL MOTORS COMPANY AND SUBSIDIARIES

SIGNATURES

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

GENERAL MOTORS COMPANY
(Registrant)

By: /s/ MARY T. BARRA _____

Mary T. Barra
Chairman and Chief Executive Officer

Date: February 10, 2021

GENERAL MOTORS COMPANY AND SUBSIDIARIES

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below on this 10th day of February 2021 by the following persons on behalf of the registrant and in the capacities indicated, including a majority of the directors.

<u>Signature</u>	<u>Title</u>
<u>/s/ MARY T. BARRA</u> Mary T. Barra	Chairman and Chief Executive Officer
<u>/s/ PAUL A. JACOBSON</u> Paul A. Jacobson	Executive Vice President and Chief Financial Officer
<u>/s/ CHRISTOPHER T. HATTO</u> Christopher T. Hatto	Vice President, Global Business Solutions and Chief Accounting Officer
<u>/s/ THEODORE M. SOLSO*</u> Theodore M. Solso	Lead Director
<u>/s/ WESLEY G. BUSH*</u> Wesley G. Bush	Director
<u>/s/ LINDA R. GOODEN*</u> Linda R. Gooden	Director
<u>/s/ JOSEPH JIMENEZ*</u> Joseph Jimenez	Director
<u>/s/ JANE L. MENDILLO*</u> Jane L. Mendillo	Director
<u>/s/ JUDITH A. MISCİK*</u> Judith A. Miscik	Director
<u>/s/ PATRICIA F. RUSSO*</u> Patricia F. Russo	Director
<u>/s/ THOMAS M. SCHOEWE*</u> Thomas M. Schoewe	Director
<u>/s/ CAROL M. STEPHENSON*</u> Carol M. Stephenson	Director
<u>/s/ DEVIN N. WENIG*</u> Devin N. Wenig	Director

*By: /s/ CHRISTOPHER T. HATTO

Christopher T. Hatto

Attorney-in-Fact

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