UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549

FORM 10-Q

| ☑ QUARTERLY I EXCHANGE A | REPORT PURSUANT TO SECT | TION 13 OR 15(d |) OF THE SECUR | ITIES |
|--|--|--|--|--|
| EACHANGE AV | FOR THE QUARTERLY PERIO OR | D ENDED SEPTEM | BER 30, 2019 | |
| TRANSITION F EXCHANGE A | REPORT PURSUANT TO SECT | TION 13 OR 15(d |) OF THE SECUR | ITIES |
| EXCITATION A | FOR THE TRANSITION PERIOR COMMISSION FILE NUM | | . ТО | |
| | SIRIUS XM HOLI | INGS INC | • | |
| | (Exact name of registrant as spec | cified in its charter) | | |
| Delaware | | | 38-3916511 | |
| (State or other jurisdictio incorporation or organiza | | (I.R.S | S. Employer Identification | n No.) |
| | 1290 Avenue of the Americas, 11th (Address of Principal Exec 10104 (Zip Code) | | [| |
| Former name | Registrant's telephone number, including e, former address and former fiscal year, if | | | |
| Title of each class | Trading Symbol(s |) | Name of exchange on | which registered |
| Common stock, \$0.001 par value | SIRI | | NASDAQ Global S | elect Market |
| Indicate by check mark whether the registra preceding 12 months (or for such shorter period that to 90 days. Yes ☑ No ☐ Indicate by check mark whether the registra during the preceding 12 months (or for such shorter particular indicate by check mark whether the registra definitions of "large accelerated filer," "accelerated filer" | the registrant was required to file such report that submitted electronically every Interport that the registrant was required to sunt is a large accelerated filer, an accelerate | orts) and (2) has been sactive Data File requir bmit such files). Yes d filer, a non-accelerat | subject to such filing requed to be submitted pursuants of No tending ted filer, or a smaller repo | nirements for the past ant to Rule 405 of Regulation S-orting company. See the |
| Large accelerated filer | ☑ Accelerated filer | □ Nor | n-accelerated filer | |
| Smaller reporting company If an emerging growth company, indicate by financial accounting standards provided pursuant to S Indicate by check mark whether the registra Indicate the number of shares outstanding o | Section 13(a) of the Exchange Act. ☐ nt is a shell company (as defined in Rule 1 | 2b-2 of the Act). Yes[| _ No | plying with any new or revised |
| (Class) | | (C | Outstanding as of October | 29, 2019) |
| Common stock, \$0.001 | par value | 4,423,719, | 942 | shares |
| | | | | |
| | | | | |

SIRIUS XM HOLDINGS INC. AND SUBSIDIARIES INDEX TO FORM 10-Q

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SIRIUS XM HOLDINGS INC. AND SUBSIDIARIES CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (UNAUDITED)

| | For t | he Three Months | Ended | For the Nine Months Ended September 30, | | | | | |
|---|-------|-----------------|----------|---|----|-------|------|-------|--|
| (in millions, except per share data) | | 2019 | | 2018 | | 2019 | 2018 | | |
| Revenue: | | | | | | | | | |
| Subscriber revenue | \$ | 1,556 | \$ | 1,340 | \$ | 4,551 | \$ | 3,903 | |
| Advertising revenue | | 366 | | 46 | | 933 | | 135 | |
| Equipment revenue | | 45 | | 41 | | 127 | | 113 | |
| Other revenue | | 44 | | 40 | | 121 | | 124 | |
| Total revenue | | 2,011 | | 1,467 | | 5,732 | | 4,275 | |
| Operating expenses: | | | | | | | | | |
| Cost of services: | | | | | | | | | |
| Revenue share and royalties | | 592 | | 343 | | 1,684 | | 1,057 | |
| Programming and content | | 116 | | 96 | | 338 | | 303 | |
| Customer service and billing | | 119 | | 95 | | 352 | | 284 | |
| Transmission | | 46 | | 24 | | 117 | | 70 | |
| Cost of equipment | | 8 | | 7 | | 20 | | 22 | |
| Subscriber acquisition costs | | 101 | | 109 | | 313 | | 352 | |
| Sales and marketing | | 233 | | 117 | | 648 | | 344 | |
| Engineering, design and development | | 78 | | 31 | | 206 | | 89 | |
| General and administrative | | 124 | | 86 | | 379 | | 264 | |
| Depreciation and amortization | | 118 | | 76 | | 344 | | 222 | |
| Acquisition and other related costs | | _ | | | | 83 | | _ | |
| Total operating expenses | | 1,535 | | 984 | | 4,484 | | 3,007 | |
| Income from operations | | 476 | | 483 | | 1,248 | | 1,268 | |
| Other (expense) income: | | | | | | | | | |
| Interest expense | | (104) | | (86) | | (291) | | (263) | |
| Loss on extinguishment of debt | | (56) | | _ | | (57) | | _ | |
| Other (expense) income | | _ | | (42) | | (2) | | 82 | |
| Total other (expense) income | | (160) | <u> </u> | (128) | | (350) | | (181) | |
| Income before income taxes | | 316 | | 355 | | 898 | | 1,087 | |
| Income tax expense | | (70) | | (12) | | (227) | | (162) | |
| Net income | \$ | 246 | \$ | 343 | \$ | 671 | \$ | 925 | |
| Foreign currency translation adjustment, net of tax | | (5) | | 8 | | 9 | | (10) | |
| Total comprehensive income | \$ | 241 | \$ | 351 | \$ | 680 | \$ | 915 | |
| Net income per common share: | | | | | | | | | |
| Basic | \$ | 0.06 | \$ | 0.08 | \$ | 0.15 | \$ | 0.21 | |
| Diluted | \$ | 0.05 | \$ | 0.07 | \$ | 0.15 | \$ | 0.20 | |
| Weighted average common shares outstanding: | | | | | | | | | |
| Basic | | 4,450 | | 4,474 | | 4,529 | | 4,482 | |
| Diluted | | 4,564 | | 4,574 | | 4,641 | | 4,586 | |
| | | | _ | | | | | , | |

SIRIUS XM HOLDINGS INC. AND SUBSIDIARIES CONSOLIDATED BALANCE SHEETS

| (in millions, except per share data) | | ember 30, 2019 | December 31, 2018 | | |
|--|-----|----------------|-------------------|---------|--|
| ASSETS | (u | ınaudited) | | | |
| Current assets: | | | | | |
| Cash and cash equivalents | \$ | 79 | \$ | 54 | |
| Receivables, net | | 632 | | 233 | |
| Inventory, net | | 14 | | 22 | |
| Related party current assets | | 11 | | 11 | |
| Prepaid expenses and other current assets | | 200 | | 158 | |
| Total current assets | | 936 | | 478 | |
| Property and equipment, net | | 1,609 | | 1,513 | |
| Intangible assets, net | | 3,505 | | 2,501 | |
| Goodwill | | 3,856 | | 2,290 | |
| Related party long-term assets | | 451 | | 960 | |
| Deferred tax assets | | 168 | | 293 | |
| Operating lease right-of-use assets | | 428 | | _ | |
| Other long-term assets | | 135 | | 138 | |
| Total assets | \$ | 11,088 | \$ | 8,173 | |
| LIABILITIES AND STOCKHOLDERS' EQUITY (DEFICIT) | | | | | |
| Current liabilities: | | | | | |
| Accounts payable and accrued expenses | \$ | 1,156 | \$ | 736 | |
| Accrued interest | | 104 | | 128 | |
| Current portion of deferred revenue | | 1,938 | | 1,932 | |
| Current maturities of debt | | 2 | | 3 | |
| Operating lease current liabilities | | 47 | | _ | |
| Related party current liabilities | | 4 | | 4 | |
| Total current liabilities | | 3,251 | | 2,803 | |
| Long-term deferred revenue | | 134 | | 149 | |
| Long-term debt | | 7,904 | | 6,885 | |
| Related party long-term liabilities | | 1 | | 4 | |
| Deferred tax liabilities | | 48 | | 47 | |
| Operating lease liabilities | | 407 | | _ | |
| Other long-term liabilities | | 91 | | 102 | |
| Total liabilities | | 11,836 | | 9,990 | |
| Commitments and contingencies (Note 15) | | | | | |
| Stockholders' equity (deficit): | | | | | |
| Common stock, par value \$0.001 per share; 9,000 shares authorized; 4,434 and 4,346 shares issued; 4,433 and 4,346 outstanding at September 30, 2019 and December 31, 2018, respectively | | 4 | | 4 | |
| Accumulated other comprehensive income (loss), net of tax | | 3 | | (6) | |
| Additional paid-in capital | | 638 | | 242 | |
| Treasury stock, at cost; 1 and 0 shares of common stock at September 30, 2019 and December 31, 2018, respective | elv | (7) | | | |
| Accumulated deficit | | (1,386) | | (2,057) | |
| Total stockholders' equity (deficit) | | (748) | | (1,817) | |
| | | (770) | | (1,017) | |

SIRIUS XM HOLDINGS INC. AND SUBSIDIARIES CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY (DEFICIT) (UNAUDITED)

For the Nine Months Ended September 30, 2019

| | Comn | on Sto | ock | Accumulated Other | Additional | | Treas | ury S | tock | | | | Total kholders' |
|---|--------|--------|-------|--------------------------------|------------|--------------------|--------|------------|---------|---------------------|---------|---------------------|--------------------|
| (in millions) | Shares | A | mount | Comprehensive Income (Loss) | А | Paid-in Capital | Shares | res Amount | | Accumulated Deficit | | Equity (Deficit) | |
| Balance at December 31, 2018 | 4,346 | \$ | 4 | \$ (6) | \$ | 242 | | \$ | | \$ | (2,057) | \$ | (1,817) |
| Comprehensive income, net of tax | _ | | _ | 9 | | _ | _ | | _ | | 671 | | 680 |
| Share-based payment expense | _ | | _ | _ | | 201 | _ | | _ | | _ | | 201 |
| Exercise of stock options and vesting of restricted stock units | 30 | | _ | _ | | 8 | _ | | _ | | _ | | 8 |
| Withholding taxes on net share settlement of stock-based compensation | _ | | _ | _ | | (104) | _ | | _ | | _ | | (104) |
| Cash dividends paid on common stock, \$0.0363 per share | _ | | _ | _ | | (167) | _ | | _ | | _ | | (167) |
| Issuance of common stock as part of Pandora Acquisition | 392 | | 1 | _ | | 2,354 | _ | | _ | | _ | | 2,355 |
| Equity component of convertible note | _ | | _ | _ | | 62 | _ | | _ | | _ | | 62 |
| Common stock repurchased | _ | | _ | _ | | _ | 335 | | (1,966) | | _ | | (1,966) |
| Common stock retired | (334) | | (1) | _ | | (1,958) | (334) | | 1,959 | | _ | | _ |
| Balance at September 30, 2019 | 4,434 | \$ | 4 | \$ 3 | \$ | 638 | 1 | \$ | (7) | \$ | (1,386) | \$ | (748) |

SIRIUS XM HOLDINGS INC. AND SUBSIDIARIES CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY (DEFICIT) (UNAUDITED)

For the Three Months Ended September 30, 2019

| | Comn | non St | ock | A | ccumulated | | | Treas | ury St | ock | | | | |
|---|--------|--------|--------|----|---|----|---------------------------------|--------|--------|-------|------------------------|---------|---|-------|
| (in millions) | Shares | A | Amount | | Other Comprehensive Income (Loss) | | dditional Paid-in Capital | Shares | Amount | | Accumulated Deficit | | Total Stockholders' Equity (Deficit | |
| Balance at June 30, 2019 | 4,497 | \$ | 4 | \$ | 8 | \$ | 1,159 | 5 | \$ | (28) | \$ | (1,632) | \$ | (489) |
| Comprehensive income, net of tax | _ | | _ | | (5) | | _ | _ | | _ | | 246 | | 241 |
| Share-based payment expense | _ | | _ | | _ | | 67 | _ | | _ | | _ | | 67 |
| Exercise of stock options and vesting of restricted stock units | 17 | | _ | | _ | | 8 | _ | | _ | | _ | | 8 |
| Withholding taxes on net share settlement of stock-based compensation | _ | | _ | | _ | | (57) | _ | | _ | | _ | | (57) |
| Cash dividends paid on common stock, \$0.0121 per share | _ | | _ | | _ | | (54) | _ | | _ | | _ | | (54) |
| Common stock repurchased | _ | | _ | | _ | | _ | 76 | | (464) | | _ | | (464) |
| Common stock retired | (80) | | _ | | _ | | (485) | (80) | | 485 | | _ | | _ |
| Balance at September 30, 2019 | 4,434 | \$ | 4 | \$ | 3 | \$ | 638 | 1 | \$ | (7) | \$ | (1,386) | \$ | (748) |

SIRIUS XM HOLDINGS INC. AND SUBSIDIARIES CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY (DEFICIT) (UNAUDITED)

For the Nine Months Ended September 30, 2018

| To the Military and Special 20, 2010 | | | | | | | | | | | | | | |
|---|--------|--------------------------|-------|-------|--------------------------------|---------|--------------------|-----------|---------------|-------|------------------------|---------|------------------|--------------------|
| | Comn | non St | ock | | Accumulated Other | | dditional | Treasu | ıry Sto | ock | | | Sto | Total kholders' |
| (in millions) | Shares | A | mount | | Comprehensive Income (Loss) | | Paid-in Capital | Shares | Shares Amount | | Accumulated Deficit | | Equity (Deficit) | |
| Balance at December 31, 2017 | 4,531 | 4,531 \$ 4 \$ 19 \$ 1,71 | | 1,713 | 3 | \$ (17) | | \$ | (3,243) | \$ | (1,524) | | | |
| Cumulative effect of change in accounting principles | _ | | _ | | 4 | | 31 | _ | | _ | | 10 | | 45 |
| Comprehensive income, net of tax | _ | | _ | | (10) | | _ | _ | | _ | | 925 | | 915 |
| Share-based payment expense | _ | | _ | | _ | | 100 | _ | | _ | | _ | | 100 |
| Exercise of stock options and vesting of restricted stock units | 25 | | _ | | _ | | _ | _ | | _ | | _ | | _ |
| Withholding taxes on net share settlement of stock-based compensation | _ | | _ | | _ | | (112) | _ | | _ | | _ | | (112) |
| Cash dividends paid on common stock, \$0.0330 per share | _ | | _ | | _ | | (148) | _ | | _ | | _ | | (148) |
| Common stock repurchased | _ | | _ | | _ | | _ | 104 (651) | | (651) | | _ | — (| |
| Common stock retired | (106) | | _ | | _ | | (662) | (106) | | 662 | | _ | | _ |
| Balance at September 30, 2018 | 4,450 | \$ | 4 | \$ | 13 | \$ | 922 | 1 | \$ | (6) | \$ | (2,308) | \$ | (1,375) |

SIRIUS XM HOLDINGS INC. AND SUBSIDIARIES CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY (DEFICIT) (UNAUDITED)

For the Three Months Ended September 30, 2018

| - | Common Stock Accumulated Treasury Stock | | | | | | | | | | | | | |
|---|---|--------|--------|----|--------------------------------|------------|--------------------|--------|--------|-------|------------------------|---------|------------------|---------------------|
| | Comn | non St | ock | | Accumulated Other | Additional | | Treas | ury S | tock | | | Sto | Total ckholders' |
| (in millions) | Shares | A | Amount | • | Comprehensive Income (Loss) | | Paid-in Capital | Shares | Amount | | Accumulated Deficit | | Equity (Deficit) | |
| Balance at June 30, 2018 | 4,486 | \$ | 4 | \$ | 5 | \$ | 1,267 | | \$ | | \$ | (2,647) | \$ | (1,371) |
| Cumulative effect of change in accounting principles | _ | | _ | | _ | | 31 | _ | | _ | | (4) | | 27 |
| Comprehensive income, net of tax | _ | | _ | | 8 | | _ | _ | | _ | | 343 | | 351 |
| Share-based payment expense | _ | | _ | | _ | | 42 | _ | | _ | | _ | | 42 |
| Exercise of stock options and vesting of restricted stock units | 11 | | _ | | _ | | _ | _ | | _ | | _ | | _ |
| Withholding taxes on net share settlement of stock-based compensation | _ | | _ | | _ | | (41) | _ | | _ | | _ | | (41) |
| Cash dividends paid on common stock, \$0.0110 per share | _ | | _ | | _ | | (49) | _ | | _ | | _ | | (49) |
| Common stock repurchased | _ | | _ | | _ | | _ | 48 | | (334) | | _ | | (334) |
| Common stock retired | (47) | | _ | | _ | | (328) | (47) | | 328 | | _ | | _ |
| Balance at September 30, 2018 | 4,450 | \$ | 4 | \$ | 13 | \$ | 922 | 1 | \$ | (6) | \$ | (2,308) | \$ | (1,375) |

SIRIUS XM HOLDINGS INC. AND SUBSIDIARIES CONSOLIDATED STATEMENTS OF CASH FLOWS (UNAUDITED)

| | For | For the Nine Months Ended September 30, | | | | | | |
|---|-----|---|----------|--|--|--|--|--|
| (in millions) | | 2019 | 2018 | | | | | |
| Cash flows from operating activities: | | | | | | | | |
| Net income | \$ | 671 | \$ 925 | | | | | |
| Adjustments to reconcile net income to net cash provided by operating activities: | | | | | | | | |
| Depreciation and amortization | | 344 | 222 | | | | | |
| Non-cash interest expense, net of amortization of premium | | 12 | 7 | | | | | |
| Provision for doubtful accounts | | 40 | 38 | | | | | |
| Amortization of deferred income related to equity method investment | | (2) | (2) | | | | | |
| Loss on extinguishment of debt | | 57 | | | | | | |
| Loss on unconsolidated entity investments, net | | 16 | 2 | | | | | |
| Gain on fair value instrument | | _ | (74) | | | | | |
| Dividend received from unconsolidated entity investment | | 1 | 2 | | | | | |
| Share-based payment expense | | 192 | 100 | | | | | |
| Deferred income taxes | | 210 | 173 | | | | | |
| Changes in operating assets and liabilities: | | | | | | | | |
| Receivables | | (85) | (42) | | | | | |
| Inventory | | 8 | 1 | | | | | |
| Related party, net | | _ | 2 | | | | | |
| Prepaid expenses and other current assets | | (9) | (35) | | | | | |
| Other long-term assets | | 5 | 6 | | | | | |
| Operating lease right-of-use assets | | 16 | _ | | | | | |
| Accounts payable and accrued expenses | | 79 | 8 | | | | | |
| Accrued interest | | (24) | (53) | | | | | |
| Deferred revenue | | (46) | 65 | | | | | |
| Operating lease liabilities | | (4) | _ | | | | | |
| Other long-term liabilities | | 4 | 1 | | | | | |
| Net cash provided by operating activities | | 1,485 | 1,346 | | | | | |
| Cash flows from investing activities: | | , | , | | | | | |
| Additions to property and equipment | | (239) | (238) | | | | | |
| Purchases of other investments | | (7) | (7) | | | | | |
| Acquisition of business, net of cash acquired | | 313 | (1) | | | | | |
| Sale of short-term investments | | 73 | | | | | | |
| Investments in related parties and other equity investees | | (14) | (8) | | | | | |
| Repayment from related party | | | 3 | | | | | |
| Net cash provided by (used in) investing activities | | 126 | (251) | | | | | |
| Cash flows from financing activities: | | | | | | | | |
| Proceeds from exercise of stock options | | 8 | _ | | | | | |
| Taxes paid from net share settlements for stock-based compensation | | (104) | (111) | | | | | |
| Revolving credit facility, net of deferred financing costs | | (374) | (184) | | | | | |
| Proceeds from long-term borrowings, net of costs | | 2,715 | _ | | | | | |
| Proceeds from sale of capped call security | | 3 | _ | | | | | |
| Principal payments of long-term borrowings | | (1,663) | (12) | | | | | |
| Payment of premiums on redemption of debt | | (45) | | | | | | |
| Common stock repurchased and retired | | (1,959) | (662) | | | | | |
| Dividends paid | | (167) | (148) | | | | | |
| Net cash used in financing activities | | (1,586) | (1,117) | | | | | |
| Net increase (decrease) in cash, cash equivalents and restricted cash | | 25 | (22) | | | | | |
| Cash, cash equivalents and restricted cash at beginning of period | | 65 | 79 | | | | | |
| • • • | \$ | 90 | \$ 57 | | | | | |
| Cash, cash equivalents and restricted cash at end of period ¹⁾ | \$ | 90 | 3 | | | | | |

SIRIUS XM HOLDINGS INC. AND SUBSIDIARIES CONSOLIDATED STATEMENTS OF CASH FLOWS - Continued (UNAUDITED)

| | For the Nine Months Ended September 30, | | | | | | | |
|---|---|-------|----|------|--|--|--|--|
| (in millions) | | 2019 | | | | | | |
| Supplemental Disclosure of Cash and Non-Cash Flow Information | | | | | | | | |
| Cash paid during the period for: | | | | | | | | |
| Interest, net of amounts capitalized | \$ | 300 | \$ | 305 | | | | |
| Income taxes paid | \$ | 6 | \$ | 6 | | | | |
| Non-cash investing and financing activities: | | | | | | | | |
| Treasury stock not yet settled | \$ | (7) | \$ | 11 | | | | |
| Fair value of shares issued related to Pandora Acquisition | \$ | 2,355 | \$ | _ | | | | |
| Accumulated other comprehensive income (loss), net of tax | \$ | 9 | \$ | (10) | | | | |

(1) The following table reconciles cash, cash equivalents and restricted cash per the statement of cash flows to the balance sheet. The restricted cash balances are primarily due to letters of credit which have been issued to the landlords of leased office space. The terms of the letters of credit primarily extend beyond one year.

| (in millions) | September 30, 2019 | | | December 31, 2018 | September 30, 2018 | December 31, 2017 | | |
|---|--------------------|----|----|-------------------|--------------------|-------------------|----|--|
| Cash and cash equivalents | \$ | 79 | \$ | 54 | \$ 46 | \$ | 69 | |
| Restricted cash included in Other long-term assets | | 11 | | 11 | 11 | | 10 | |
| Total cash, cash equivalents and restricted cash at end of period | \$ | 90 | \$ | 65 | \$ 57 | \$ | 79 | |

(Dollars and shares in millions, except per share amounts)

(1) Business & Basis of Presentation

This Quarterly Report on Form 10-Q presents information for Sirius XM Holdings Inc. ("Holdings"). The terms "Holdings," "we," "us," "our," and "our company" as used herein, and unless otherwise stated or indicated by context, refer to Sirius XM Holdings Inc. and its subsidiaries. "Sirius XM" refers to our wholly owned subsidiary Sirius XM Radio Inc. and its subsidiaries. "Pandora" refers to Sirius XM's wholly owned subsidiary Pandora Media, LLC (the successor to Pandora Media, Inc.) and its subsidiaries. Holdings has no operations independent of Sirius XM and Pandora.

Business

We operate two complementary audio entertainment businesses - our Sirius XM business and our Pandora business.

Sirius XM

Our Sirius XM business features music, sports, entertainment, comedy, talk, news, traffic and weather channels, as well as infotainment services, in the United States on a subscription fee basis. The Sirius XM service is distributed through our two proprietary satellite radio systems and through the internet via applications for mobile devices, home devices and other consumer electronic equipment. Satellite radios are primarily distributed through automakers, retailers and our website. Our Sirius XM service is also available through our user interface, which we call "360L," that combines our satellite and streaming services into a single, cohesive in-vehicle entertainment experience. The primary source of revenue from our Sirius XM business is generated from subscription fees, with most of our customers subscribing to monthly, quarterly, semi-annual or annual plans. We also derive revenue from advertising on select non-music channels, direct sales of our satellite radios and accessories, and other ancillary services. As of September 30, 2019, our Sirius XM business had approximately 34.6 million subscribers.

In addition to our audio entertainment businesses, we provide connected vehicle services to several automakers and directly to consumers through aftermarket devices. These services are designed to enhance the safety, security and driving experience of consumers. We also offer a suite of data services that includes graphical weather, fuel prices, sports schedules and scores and movie listings, a traffic information service that includes information as to road closings, traffic flow and incident data to consumers with compatible in-vehicle navigation systems, and real-time weather services designed for improving situational awareness in vehicles, boats and planes.

Sirius XM also holds a 70% equity interest and 33% voting interest in Sirius XM Canada Holdings Inc. ("Sirius XM Canada"). Sirius XM Canada's subscribers are not included in our subscriber count or subscriber-based operating metrics.

Pandora

Our Pandora business operates a music, comedy and podcast streaming discovery platform, offering a personalized experience for each listener wherever and whenever they want to listen, whether through mobile devices, car speakers or connected devices. Pandora enables listeners to create personalized stations and playlists, discover new content, hear artist- and expert-curated playlists, podcasts and select Sirius XM content as well as search and play songs and albums on-demand. Pandora is available as an adsupported radio service, a radio subscription service, called Pandora Plus, and an on-demand subscription service, called Pandora Premium. As of September 30, 2019, Pandora had approximately 6.3 million subscribers. The majority of revenue from our Pandora business is generated from advertising on our Pandora ad-supported radio service. In addition, as a result of the May 2018 acquisition of AdsWizz Inc. by Pandora, we provide a comprehensive digital audio advertising technology platform, which connects audio publishers and advertisers. As of September 30, 2019, our Pandora business had approximately 63.1 million monthly active users.

Liberty Media

As of September 30, 2019, Liberty Media Corporation ("Liberty Media") beneficially owned, directly and indirectly, approximately71% of the outstanding shares of our common stock. As a result, we are a "controlled company" for the purposes of the NASDAQ corporate governance requirements.

(Dollars and shares in millions, except per share amounts)

Basis of Presentation

The accompanying unaudited consolidated financial statements of Holdings have been prepared in accordance with U.S. generally accepted accounting principles ("GAAP"). All significant intercompany transactions have been eliminated in consolidation. Certain numbers in our prior period consolidated financial statements and footnotes have been reclassified or consolidated to conform to our current period presentation. Music Royalty Fee revenue was reported as Other revenue in our September 30, 2018 Quarterly Report on Form 10-Q. This revenue was reclassified to Subscriber revenue to conform with the current period presentation.

| | | For the Th | ree Mon | ths Ended Septemb | er 30, 2 | 018 | For the Nine Months Ended September 30, 2018 | | | | | | | |
|---------------------|----|------------|---------|-------------------|----------|--------------|--|------------------|-------|-------------------------|-------|-----|-------------|--|
| | As | Reported | R | Reclassification | Cu | rrent Report | As Reported | Reclassification | | ported Reclassification | | Cur | rent Report | |
| Subscriber revenue | \$ | 1,162 | \$ | 178 | \$ | 1,340 | \$ 3,419 | \$ | 484 | \$ | 3,903 | | | |
| Advertising revenue | | 46 | | _ | | 46 | 135 | | _ | | 135 | | | |
| Equipment revenue | | 41 | | _ | | 41 | 113 | | _ | | 113 | | | |
| Other revenue | | 218 | | (178) | | 40 | 608 | | (484) | | 124 | | | |
| Total revenue | \$ | 1,467 | \$ | _ | \$ | 1,467 | \$ 4,275 | \$ | _ | \$ | 4,275 | | | |

In the opinion of our management, all normal recurring adjustments necessary for a fair presentation of our unaudited consolidated financial statements as of September 30, 2019 and for the three and nine months ended September 30, 2019 and 2018 have been made.

Interim results are not necessarily indicative of the results that may be expected for a full year. This Quarterly Report on Form 10-Q should be read together with our Annual Report on Form 10-K for the year ended December 31, 2018, which was filed with the SEC on January 30, 2019.

Public companies are required to disclose certain information about their reportable operating segments. Operating segments are defined as significant components of an enterprise for which separate financial information is available and is evaluated on a regular basis by the chief operating decision maker in deciding how to allocate resources to an individual segment and in assessing performance of the segment. We have determined that we have two reportable segments as our chief operating decision maker, our Chief Executive Officer, assesses performance and allocates resources based on the financial results of these segments. Refer to Note 16 for information related to our segments.

We have evaluated events subsequent to the balance sheet date and prior to the filing of this Quarterly Report on Form 10-Q for the three and nine months ended September 30, 2019 and have determined that no events have occurred that would require adjustment to our unaudited consolidated financial statements. For a discussion of subsequent events that do not require adjustment to our unaudited consolidated financial statements refer to Note 18.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported in the financial statements and footnotes. Estimates, by their nature, are based on judgment and available information. Actual results could differ materially from those estimates. Significant estimates inherent in the preparation of the accompanying unaudited consolidated financial statements include asset impairment, depreciable lives of our satellites, share-based payment expense, income taxes, and the purchase accounting related to the Pandora Acquisition (defined below).

(2) Acquisition

On February 1, 2019, through a series of transactions, Pandora Media, Inc., became an indirect wholly owned subsidiary of Sirius XM and continues to operate as Pandora Media, LLC (the "Pandora Acquisition"). In connection with the Pandora Acquisition, we purchased all of the outstanding shares of the capital stock of Pandora for \$2,355 by converting each outstanding share of Pandora common stock into 1.44 shares of our common stock and we also canceled our preferred stock investment in Pandora for \$524 for total consideration of \$2,879. Net cash acquired was \$313. As part of the Pandora

(Dollars and shares in millions, except per share amounts)

Acquisition, Holdings unconditionally guaranteed all of the payment obligations of Pandora under its outstanding 1.75% convertible senior notes due 2020 and 1.75% convertible senior notes due 2023.

The table below shows the value of the consideration paid in connection with the Pandora Acquisition:

| | Total |
|--|-------------|
| Pandora common stock outstanding | 272 |
| Exchange ratio | 1.44 |
| Common stock issued | 392 |
| Price per share of Holdings common stock | \$ 5.83 |
| Value of common stock issued to Pandora stockholders | \$ 2,285 |
| Value of replacement equity awards attributable to pre-combination service | \$ 70 |
| Consideration of common stock and replacement equity awards for pre-combination service | \$ 2,355 |
| Sirius XM's Pandora preferred stock investment (related party fair value instrument) canceled | \$ 524 |
| Total consideration for Pandora Acquisition | \$ 2,879 |
| Value attributed to par at \$0.001 par value | \$ 1 |
| Balance to capital in excess of par value | \$ 2,354 |
| The table below summarizes the fair value of the assets acquired and liabilities assumed as of the acquisition date: | |

| Acquired Assets: | |
|---|-------------|
| Cash and cash equivalents | \$ 313 |
| Receivables, net | 353 |
| Prepaid expenses and other current assets | 109 |
| Property and equipment | 65 |
| Intangible assets | 1,107 |
| Goodwill | 1,566 |
| Deferred tax assets | 87 |
| Operating lease right-of-use assets | 96 |
| Long term assets | 7 |
| Total assets | \$ 3,703 |
| | |
| Assumed Liabilities: | |
| Accounts payable and accrued expenses | \$ 322 |
| Deferred revenue | 37 |
| Operating lease current liabilities | 27 |
| Current maturities of debt | 151 |
| Long-term debt (a) | 218 |
| Operating lease liabilities | 62 |
| Other long-term liabilities | 7 |
| Total liabilities | \$ 824 |
| Total consideration | \$ 2,879 |

(a) In order to present the assets acquired and liabilities assumed, the conversion feature associated with the convertible notes for \$62 has been included within Long-term debt in the table above and included within Additional paid-in-capital within our unaudited statement of stockholders' equity (deficit). Refer to Note 12 for additional information.

The Pandora Acquisition was accounted for using the acquisition method of accounting. The initial purchase price allocation is preliminary and is subject to revision as permitted by ASC 805, *Business Combinations*. The primary areas of the purchase price allocation that are not yet finalized are related to certain assets, contingencies and tax balances. The excess purchase price over identifiable net tangible and intangible assets of \$1,566 has been recorded to Goodwill in our unaudited

(Dollars and shares in millions, except per share amounts)

consolidated balance sheets as of September 30, 2019. A total of \$776 has been allocated to identifiable intangible assets subject to amortization and relates to the assessed fair value of the acquired customer relationships and software and technology and is being amortized over the estimated weighted average useful lives of 8 and 5 years, respectively. A total of \$331 has been allocated to identifiable indefinite lived intangible assets and relates to the assessed fair value of the acquired trademarks. The fair value assessed for the majority of the remaining assets acquired and liabilities assumed equaled their carrying value. Goodwill represents synergies and economies of scale expected from the combination of services. Goodwill has been allocated to the Pandora segment. Additionally, in connection with the Pandora Acquisition, we acquired gross net operating loss ("NOL") carryforwards of approximately \$1,284 for federal income tax purposes that are available to offset future taxable income. The acquired NOL's are limited by Section 382 of the Internal Revenue Code. Those limitations are not expected to impact our ability to fully utilize those NOL's within the carryforward period.

We recognized acquisition related costs of \$0 and \$83 that were expensed in Acquisition and other related costs in our unaudited consolidated statements of comprehensive income during the three and nine months ended September 30, 2019, respectively.

Pro Forma Financial Information

Pandora was consolidated into our financial statements starting on the acquisition date, February 1, 2019. The aggregate revenue and net loss of Pandora consolidated into our financial statements since the date of acquisition was \$447 and \$47, respectively, for the three months ended September 30, 2019, and \$1,139 and \$225 for the nine months ended September 30, 2019, respectively. The following pro forma financial information presents our results as if the Pandora Acquisition had occurred on January 1, 2018:

| | I | For the Three Month | s Ende | d September 30, | For the Nine Months | Ended | September 30, |
|---------------|----|---------------------|--------|-----------------|-------------------------|-------|---------------|
| | | 2019 2018 | | 2019 | 2018 | | |
| Total revenue | \$ | 2,013 | \$ | 1,887 | \$ 5,852 | \$ | 5,404 |
| Net income | \$ | 245 | \$ | 317 | \$ 690 | \$ | 608 |

These pro forma results are based on estimates and assumptions, which we believe are reasonable. They are not the results that would have been realized had the acquisition actually occurred on January 1, 2018 and are not indicative of our consolidated results of operations in future periods. The pro forma results primarily include adjustments related to amortization of acquired intangible assets, depreciation of property and equipment, acquisition costs, fair value gain or loss on the Pandora investment and associated tax impacts. With respect to the three months ended September 30, 2019, the pro forma results only represent the effect of purchase price accounting, as Pandora's results of operations were fully reflected for the period).

(3) Summary of Significant Accounting Policies

Fair Value Measurements

For assets and liabilities required to be reported at fair value, GAAP provides a hierarchy that prioritizes inputs to valuation techniques used to measure fair value into three broad levels. Level 1 inputs are based on unadjusted quoted prices in active markets for identical instruments. Level 2 inputs are inputs, other than quoted market prices included within Level 1, that are observable for the asset or liability, either directly or indirectly. Level 3 inputs are unobservable inputs for the asset or liability. As of September 30, 2019 and December 31, 2018, the carrying amounts of cash and cash equivalents, receivables, and accounts payable approximated fair value due to the short-term nature of these instruments.

Our assets and liabilities measured at fair value were as follows:

| | | September 30, 2019 | | | | | December 31, 2018 | | | | | |
|------------------------|---------|--------------------|---------|---------|----|---------------------|-------------------|----|---------|---------|----|---------------------|
| | Level 1 | 1 | Level 2 | Level 3 | , | Total Fair Value | Level 1 | | Level 2 | Level 3 | - | Total Fair Value |
| Assets: | | | | | | | | | | | | |
| Pandora investment (a) | _ | | _ | _ | \$ | _ | _ | \$ | 523 | _ | \$ | 523 |
| Liabilities: | | | | | | | | | | | | |
| Debt (b) | _ | \$ | 8,349 | _ | \$ | 8,349 | _ | \$ | 6,633 | _ | \$ | 6,633 |
| | | | | | | | | | | | | |
| | | | | 13 | | | | | | | | |

(Dollars and shares in millions, except per share amounts)

- (a) During the year ended December 31, 2017, Sirius XM completed a \$480 preferred stock investment in Pandora. Prior to the Pandora Acquisition, we elected the fair value option to account for this investment. This investment was canceled in conjunction with the Pandora Acquisition. Refer to Note 2 for information on this acquisition.
- (b) The fair value for non-publicly traded debt is based upon estimates from a market maker and brokerage firm. Refer to Note 12 for information related to the carrying value of our debt as of September 30, 2019 and December 31, 2018.

Accumulated Other Comprehensive Income (Loss)

Accumulated other comprehensive income of \$3 was primarily comprised of the cumulative foreign currency translation adjustments related to our investment in and loan to Sirius XM Canada (refer to Note 11 for additional information). During the three and nine months ended September 30, 2019, we recorded foreign currency translation adjustment (loss) income of \$(5) and \$9, respectively, net of tax benefit (expense) of \$1 and \$(4), respectively. During the three and nine months ended September 30, 2018, we recorded a foreign currency translation adjustment income (loss) of \$8 and \$(10), respectively, net of a tax (expense) benefit of \$(2) and \$3, respectively.

Recent Accounting Pronouncements

In August 2018, the Financial Accounting Standards Board ("FASB") issued ASU 2018-15, Intangibles—Goodwill and Other—Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract. This ASU aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software. The implementation costs incurred in a hosting arrangement that is a service contract should be presented as a prepaid asset in the balance sheet and expensed over the term of the hosting arrangement to the same line item in the statement of income as the costs related to the hosting fees. The guidance in this ASU is effective for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years, and early adoption is permitted including adoption in any interim period. The amendments should be applied either retrospectively or prospectively to all implementation costs incurred after adoption. This ASU will not have a material impact on our consolidated statements of operations.

Recently Adopted Accounting Policies

ASU 2016-02, Leases (Topic 842). In February 2016, FASB issued ASU 2016-02 which requires companies to recognize lease assets and liabilities arising from operating leases in the statement of financial position. This ASU does not significantly change the previous lease guidance for how a lessee should recognize, measure, and present expenses and cash flows arising from a lease. Additionally, the criteria for classifying a finance lease versus an operating lease are substantially the same as the previous guidance. This ASU was effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years, and early adoption was permitted. In July 2018, the FASB issued ASU 2018-11, Leases (Topic 842) Targeted Improvements, amending certain aspects of the new leasing standard. The amendment allows an additional optional transition method whereby an entity records a cumulative effect adjustment to opening retained earnings in the year of adoption without restating prior periods. We adopted this ASU on January 1, 2019 and elected the additional transition method per ASU 2018-11. Our leases consist of repeater leases, facility leases and equipment leases. We elected the package of practical expedients permitted under the transition guidance within the new standard.

Adoption of the new standard resulted in the recording of additional lease assets and lease liabilities of approximately\$347 and \$369, respectively, as of January 1, 2019. The standard did not impact our consolidated statements of operations, consolidated statements of cash flows or debt. Additionally, we did not record a cumulative effect adjustment to opening retained earnings.

(Dollars and shares in millions, except per share amounts)

The effect of the changes made to our consolidated balance sheet as of January 1, 2019 for the adoption of ASU 2016-02 is included in the table below.

| | Balance at De | Balance at December 31, 2018 | | s Due to ASU 2016-02 | Balance at January 1, 2019 | | |
|---------------------------------------|---------------|------------------------------|----|----------------------|----------------------------|-----|--|
| Balance Sheet | | _ | | _ | | | |
| Assets: | | | | | | | |
| Operating lease right-of-use assets | \$ | _ | \$ | 347 | \$ | 347 | |
| | | | | | | | |
| <u>Liabilities:</u> | | | | | | | |
| Accounts payable and accrued expenses | \$ | 736 | \$ | (1) | \$ | 735 | |
| Operating lease current liabilities | | _ | | 30 | | 30 | |
| Operating lease liabilities | | _ | | 339 | | 339 | |
| Other long-term liabilities | | 102 | | (21) | | 81 | |

(4) Earnings per

Basic net income per common share is calculated by dividing the income available to common stockholders by the weighted average common shares outstanding during each reporting period. Diluted net income per common share adjusts the weighted average number of common shares outstanding for the potential dilution that could occur if common stock equivalents (stock options, restricted stock units and convertible debt) were exercised or converted into common stock, calculated using the treasury stock method. We had no participating securities during the three and nine months ended September 30, 2019 and 2018.

Common stock equivalents of 47 and 22 for the three months ended September 30, 2019 and 2018, respectively, and 76 and 14 for the nine months ended September 30, 2019 and 2018, respectively, were excluded from the calculation of diluted net income per common share as the effect would have been anti-dilutive. We issued 392 shares of our common stock in connection with the Pandora Acquisition.

| | For the Three Months Ended September 30, | | | | | For the Nine Months | s Ended September 30, | | |
|--|--|-------|----|-------|----|---------------------|-----------------------|-------|--|
| | | 2019 | | 2018 | | 2019 | | 2018 | |
| Numerator: | | | | | | | | | |
| Net Income available to common stockholders for basic net income per common share | \$ | 246 | \$ | 343 | \$ | 671 | \$ | 925 | |
| Effect of interest on assumed conversions of convertible debt, net of tax | | 2 | | _ | | 5 | | _ | |
| Net Income available to common stockholders for dilutive net income per common share | \$ | 248 | \$ | 343 | \$ | 676 | \$ | 925 | |
| Denominator: | | | | | | | | | |
| Weighted average common shares outstanding for basic net income per common share | | 4,450 | | 4,474 | | 4,529 | | 4,482 | |
| Weighted average impact of assumed convertible notes | | 29 | | _ | | 28 | | _ | |
| Weighted average impact of dilutive equity instruments | | 85 | | 100 | | 84 | | 104 | |
| Weighted average shares for diluted net income per common share | | 4,564 | | 4,574 | | 4,641 | | 4,586 | |
| Net income per common share: | | | | | | | | | |
| Basic | \$ | 0.06 | \$ | 0.08 | \$ | 0.15 | \$ | 0.21 | |
| Diluted | \$ | 0.05 | \$ | 0.07 | \$ | 0.15 | \$ | 0.20 | |
| | _ | | _ | | _ | | _ | | |

(Dollars and shares in millions, except per share amounts)

(5) Receivables,

net

Receivables, net, includes customer accounts receivable, receivables from distributors and other receivables.

Customer accounts receivable, net, includes receivables from our subscribers, advertising customers and other customers, and is stated at amounts due, net of an allowance for doubtful accounts. Our allowance for doubtful accounts is based upon our assessment of various factors. We consider historical experience, the age of the receivable balances, current economic conditions and other factors that may affect the counterparty's ability to pay. Bad debt expense is included in Customer service and billing expense in our unaudited consolidated statements of comprehensive income.

Receivables from distributors primarily include billed and unbilled amounts due from automakers for services included in the sale or lease price of vehicles, as well as billed amounts due from wholesale distributors of our satellite radios. Other receivables primarily include amounts due from manufacturers of our radios, modules and chipsets where we are entitled to subsidies and royalties based on the number of units produced. We have not established an allowance for doubtful accounts for our receivables from distributors or other receivables as we have historically not experienced any significant collection issues with automakers or other third parties.

Receivables, net, consists of the following:

| | September 30, 2019 | | Dec | cember 31, 2018 |
|------------------------------------|--------------------|------|-----|-----------------|
| Gross customer accounts receivable | \$ | 518 | \$ | 105 |
| Allowance for doubtful accounts | | (13) | | (7) |
| Customer accounts receivable, net | \$ | 505 | \$ | 98 |
| Receivables from distributors | | 98 | | 107 |
| Other receivables | | 29 | | 28 |
| Total receivables, net | \$ | 632 | \$ | 233 |

(6) Inventory,

net

Inventory consists of finished goods, refurbished goods, chipsets and other raw material components used in manufacturing radios and connected vehicle devices. Inventory is stated at the lower of cost or market. We record an estimated allowance for inventory that is considered slow moving or obsolete or whose carrying value is in excess of net realizable value. The provision related to products purchased for resale in our direct to consumer distribution channel and components held for resale by us is reported as a component of Cost of equipment in our unaudited consolidated statements of comprehensive income. The provision related to inventory consumed in our OEM channel is reported as a component of Subscriber acquisition costs in our unaudited consolidated statements of comprehensive income.

Inventory, net, consists of the following:

| | September 30, 2019 | December 31, 2018 |
|----------------------------|--------------------|-------------------|
| Raw materials | \$ 5 | \$ 5 |
| Finished goods | 15 | 23 |
| Allowance for obsolescence | (6) | (6) |
| Total inventory, net | \$ 14 | \$ 22 |

(7) Goodwill

Goodwill represents the excess of the purchase price over the estimated fair value of the net tangible and identifiable intangible assets acquired in business combinations. Our annual impairment assessment of our two reporting units is performed as of the fourth quarter of each year, and an assessment is performed at other times if an event occurs or circumstances change that would more likely than not reduce the fair value of a reporting unit below its carrying amount. ASC 350, *Intangibles - Goodwill and Other*; states that an entity should perform its annual or interim goodwill impairment test by comparing the fair

(Dollars and shares in millions, except per share amounts)

value of a reporting unit with its carrying amount and recognize an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value.

As of September 30, 2019, there were no indicators of impairment, and no impairment losses were recorded for goodwill during thethree and nine months ended September 30, 2019 and 2018. As of September 30, 2019, the cumulative balance of goodwill impairments recorded since the July 2008 merger between our wholly owned subsidiary, Vernon Merger Corporation, and XM Satellite Radio Holdings Inc. ("XM"), was \$4,766, which was recognized during the year ended December 31, 2008.

As a result of the Pandora Acquisition, we recorded additional goodwill of \$1,566 during the nine months ended September 30, 2019 at our Pandora reporting unit. The goodwill of the acquired company is not deductible for tax purposes. Refer to Note 2 for information on this acquisition.

(8) Intangible Assets

Our intangible assets include the following:

| | | September 30, 2019 | | | | | December 31, 2018 | | | | | | | | | | | | |
|------------------------------------|-------------------------------------|--------------------|----------------------------|-----------------|-------|-----------------------------|-------------------|----|-------|----|-------|----------------------------|-------|----------|--|--------------------------|--|---|-----------------------|
| | Weighted Average Useful Lives | | Gross Carrying Value | ring Accumulate | | Accumulated Amortization | | | | | | Gross Carrying Value | | Carrying | | Accumulated Amortization | | N | let Carrying Value |
| Indefinite life intangible assets: | | | | | | | | | | | | | | | | | | | |
| FCC licenses | Indefinite | \$ | 2,084 | \$ | _ | \$ | 2,084 | \$ | 2,084 | \$ | _ | \$ | 2,084 | | | | | | |
| Trademarks | Indefinite | | 251 | | _ | | 251 | | 251 | | _ | | 251 | | | | | | |
| Definite life intangible assets: | | | | | | | | | | | | | | | | | | | |
| OEM relationships | 15 years | | 220 | | (87) | | 133 | | 220 | | (76) | | 144 | | | | | | |
| Licensing agreements | 12 years | | 45 | | (41) | | 4 | | 45 | | (38) | | 7 | | | | | | |
| Software and technology | 7 years | | 35 | | (24) | | 11 | | 35 | | (20) | | 15 | | | | | | |
| Due to Pandora Acquisition: | | | | | | | | | | | | | | | | | | | |
| Indefinite life intangible assets: | | | | | | | | | | | | | | | | | | | |
| Trademarks | Indefinite | \$ | 331 | \$ | _ | \$ | 331 | \$ | _ | \$ | _ | \$ | _ | | | | | | |
| Definite life intangible assets: | | | | | | | | | | | | | | | | | | | |
| Customer relationships | 8 years | | 403 | | (35) | | 368 | | _ | | _ | | _ | | | | | | |
| Software and technology | 5 years | | 373 | | (50) | | 323 | | | | | | | | | | | | |
| Total intangible assets | | \$ | 3,742 | \$ | (237) | \$ | 3,505 | \$ | 2,635 | \$ | (134) | \$ | 2,501 | | | | | | |

Indefinite Life Intangible Assets

We have identified our FCC licenses and the Pandora and XM trademarks as indefinite life intangible assets after considering the expected use of the assets, the regulatory and economic environment within which they are used and the effects of obsolescence on their use. As part of the Pandora Acquisition, we also identified \$331 related to its trademarks, for which the fair value was determined using the relief from royalty method as of the acquisition date.

We hold FCC licenses to operate our satellite digital audio radio service and provide ancillary services. Each of the FCC licenses authorizes us to use radio spectrum, a reusable resource that does not deplete or exhaust over time.

Our annual impairment assessment of our identifiable indefinite life intangible assets is performed as of the fourth quarter of each year. An assessment is performed at other times if an event occurs or circumstances change that would more likely than not reduce the fair value of the asset below its carrying value. If the carrying value of the intangible assets exceeds its fair value, an impairment loss is recognized. As of September 30, 2019, there were no indicators of impairment, and no impairment loss was recognized for intangible assets with indefinite lives during the three and nine months ended September 30, 2019 and 2018.

(Dollars and shares in millions, except per share amounts)

Definite Life Intangible Assets

Amortization expense for all definite life intangible assets was\$38 and \$6 for the three months ended September 30, 2019 and 2018, respectively, and \$103 and \$17 for the nine months ended September 30, 2019 and 2018, respectively. There were no retirements of definite lived intangible assets during the three and nine months ended September 30, 2019. As part of the Pandora Acquisition, \$776 was allocated to identifiable intangible assets subject to amortization and related to the assessed fair value of customer relationships and software and technology, which was determined by using the multi-period excess earnings method and the relief from royalty method, respectively, as of the acquisition date.

The expected amortization expense for each of the fiscal years 2019 through 2023 and for periods thereafter is as follows:

| Years ending December 31, | Amount |
|--|-----------|
| 2019 (remaining) | \$ 38 |
| 2020 | 152 |
| 2021 | 146 |
| 2022 | 144 |
| 2023 | 134 |
| Thereafter | 225 |
| Total definite life intangible assets, net | \$ 839 |

(9) Property and Equipment

Property and equipment, net, consists of the following:

| | September 3 | 30, 2019 | December | 31, 2018 |
|--|-------------|----------|----------|----------|
| Satellite system | \$ | 1,587 | \$ | 1,587 |
| Terrestrial repeater network | | 100 | | 98 |
| Leasehold improvements | | 94 | | 58 |
| Broadcast studio equipment | | 122 | | 111 |
| Capitalized software and hardware | | 964 | | 824 |
| Satellite telemetry, tracking and control facilities | | 84 | | 76 |
| Furniture, fixtures, equipment and other | | 88 | | 97 |
| Land | | 38 | | 38 |
| Building | | 63 | | 63 |
| Construction in progress | | 561 | | 412 |
| Total property and equipment | | 3,701 | | 3,364 |
| Accumulated depreciation and amortization | | (2,092) | | (1,851) |
| Property and equipment, net | \$ | 1,609 | \$ | 1,513 |

Construction in progress consists of the following:

| | Septembo | er 30, 2019 | Dece | mber 31, 2018 |
|-----------------------------------|----------|-------------|------|---------------|
| Satellite system | \$ | 354 | \$ | 296 |
| Terrestrial repeater network | | 7 | | 5 |
| Capitalized software and hardware | | 162 | | 77 |
| Other | | 38 | | 34 |
| Construction in progress | \$ | 561 | \$ | 412 |

Depreciation and amortization expense on property and equipment was \$80 and \$70 for the three months ended September 30, 2019 and 2018, respectively, and \$241 and \$205 for the nine months ended September 30, 2019 and 2018,

(Dollars and shares in millions, except per share amounts)

respectively. There were no retirements of property and equipment during the nine months ended September 30, 2019 and 2018.

We capitalize a portion of the interest on funds borrowed to finance the construction and launch of our satellites. Capitalized interest is recorded as part of the asset's cost and depreciated over the satellite's useful life. Capitalized interest costs were \$4 and \$3 for the three months ended September 30, 2019 and 2018, respectively, and \$12 and \$8 for the nine months ended September 30, 2019 and 2018, respectively, which related to the construction of our SXM-7 and SXM-8 satellites. We also capitalize a portion of share-based compensation related to employee time for capitalized software projects. Capitalized share-based compensation costs were \$2 and \$9 for the three and nine months ended September 30, 2019, respectively. We did not capitalize any share-based compensation for the three and nine months ended September 30, 2018.

Satellites

As of September 30, 2019, we owned a fleet of five satellites. The chart below provides certain information on our satellites as of September 30, 2019:

| Satellite Description | Year Delivered | Estimated End of Depreciable Life |
|-----------------------|----------------|--------------------------------------|
| SIRIUS FM-5 | 2009 | 2024 |
| SIRIUS FM-6 | 2013 | 2028 |
| XM-3 | 2005 | 2020 |
| XM-4 | 2006 | 2021 |
| XM-5 | 2010 | 2025 |

Each satellite requires an FCC license and prior to the expiration of each license, we are required to apply for a renewal of the FCC satellite licenses. The renewal and extension of our licenses is reasonably certain at minimal cost, which is expensed as incurred.

The following table outlines the years in which each of our satellite licenses expires:

| FCC satellite licenses | Expiration year |
|------------------------|------------------------|
| SIRIUS FM-5 | 2025 |
| SIRIUS FM-6 | 2022 |
| XM-3 | 2021 |
| XM-4 | 2022 |
| XM-5 | 2026 |

(10) Leases

We have operating and finance leases for offices, terrestrial repeaters, data centers and certain equipment. Our leases have remaining lease terms of less than 1 year to 18 years, some of which may include options to extend the leases for up to5 years, and some of which may include options to terminate the leases within1 year. We elected the practical expedient to account for the lease and non-lease components as a single component. Additionally, we elected the practical expedient to not recognize right-of-use assets or lease liabilities for short-term leases, which are those leases with a term of twelve months or less at the lease commencement date.

SIRIUS XM HOLDINGS INC. AND SUBSIDIARIES NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued (UNAUDITED) (Dollars and shares in millions, except per share amounts)

The components of lease expense were as follows:

| | For the Three Months Ended September 30, | | |
|--|--|--------|------------------------------|
| | 2019 | | 2019 |
| Operating lease cost | \$ 22 | \$ | 60 |
| Finance lease cost | | | |
| Amortization of right-of-use assets | 1 | | 4 |
| Sublease income | (1) | | (3) |
| Total lease cost | \$ 22 | \$ | 61 |
| Supplemental cash flow information related to leases was as follows: | | | ne Months Ended ember 30, |
| | | | 2019 |
| Cash paid for amounts included in the measurement of lease liabilities: | | | |
| Operating cash flows from operating leases | | \$ | 51 |
| Financing cash flows from finance leases | | \$ | 3 |
| Right-of-use assets obtained in exchange for lease obligations: | | | |
| Operating leases | | \$ | 36 |
| Supplemental balance sheet information related to leases was as follows: | | Septen | ıber 30, 2019 |
| Operating Leases | | | |
| Operating lease right-of-use assets | | \$ | 428 |
| Operating lease current liabilities | | | 47 |
| Operating lease liabilities | | | 407 |
| Total operating lease liabilities | | \$ | 454 |
| | | Septem | ber 30, 2019 |
| Finance Leases | | _ | |
| Property and equipment, gross | | \$ | 15 |
| Accumulated depreciation | | • | (11) |
| Property and equipment, net | | \$ | 4 |
| Current maturities of debt | | \$ | 2 |
| Long-term debt | | | 1 |
| Total finance lease liabilities | | \$ | 3 |
| | | Septe | mber 30, 2019 |
| Weighted Average Remaining Lease Term | | | |
| Operating leases Finance leases | | | 10 years |
| Hinance leases | | | 2 years |

(Dollars and shares in millions, except per share amounts)

| | September 30, 2019 |
|--------------------------------|--------------------|
| Weighted Average Discount Rate | |
| Operating leases | 5.3 % |
| Finance leases | 1.6% |

Maturities of lease liabilities were as follows:

| | Operating Leases | Finance Leases | | |
|-------------------------------------|----------------------|----------------|---|--|
| Year ending December 31, | | | | |
| 2019 (remaining) | \$ 12 | \$ | 1 | |
| 2020 | 73 | | 1 | |
| 2021 | 63 | | 1 | |
| 2022 | 60 | | _ | |
| 2023 | 58 | | _ | |
| Thereafter | 320 | | _ | |
| Total future minimum lease payments | 586 | | 3 | |
| Less imputed interest | (132) | | _ | |
| Total | \$ 454 | \$ | 3 | |

(11) Related Party Transactions

In the normal course of business, we enter into transactions with related parties such as Sirius XM Canada.

Liberty Media

As of September 30, 2019, Liberty Media beneficially owned, directly and indirectly, approximately 71% of the outstanding shares of our common stock. Liberty Media has two executives and one of its directors on our board of directors. Gregory B. Maffei, the President and Chief Executive Officer of Liberty Media, is the Chairman of our board of directors.

Sirius XM Canada

In 2017, Sirius XM completed a recapitalization of Sirius XM Canada (the "Transaction"), which is now a privately held corporation. Following the Transaction, Sirius XM holds a 70% equity interest and 33% voting interest in Sirius XM Canada. The total consideration from Sirius XM to Sirius XM Canada during the year ended December 31, 2017 was \$309, which included \$130 in cash and we issued 35 shares of our common stock with an aggregate value of \$179 to the holders of the shares of Sirius XM Canada acquired in the Transaction. We own 591 shares of preferred stock of Sirius XM Canada, which has a liquidation preference of one Canadian dollar per share. Sirius XM also made a loan to Sirius XM Canada in the aggregate amount of \$131 in connection with the Transaction. The loan is denominated in Canadian dollars and is considered a long-term investment with any unrealized gains or losses reported within Accumulated other comprehensive (loss) income. During the nine months ended September 30, 2019 and 2018, Sirius XM Canada repaid less than \$1 and \$3 of the principal amount of the loan, respectively.

In connection with the Transaction, Sirius XM also entered into a Services Agreement and an Advisory Services Agreement with Sirius XM Canada. Each agreement has a thirty year term. Pursuant to the Services Agreement, Sirius XM Canada pays Sirius XM25% of its gross revenues on a monthly basis through December 31, 2021 and 30% of its gross revenues on a monthly basis thereafter. Pursuant to the Advisory Services Agreement, Sirius XM Canada pays Sirius XM 5% of its gross revenues on a monthly basis.

Sirius XM Canada is accounted for as an equity method investment, and its results are not consolidated in our unaudited consolidated financial statements. Sirius XM Canada does not meet the requirements for consolidation as we do not have the ability to direct the most significant activities that impact Sirius XM Canada's economic performance.

(Dollars and shares in millions, except per share amounts)

Our related party long-term assets balance as of September 30, 2019 and December 31, 2018 included the carrying value of our investment balance in Sirius XM Canada of \$322 and \$311, respectively, and, as of September 30, 2019 and December 31, 2018, also included \$129 and \$126, respectively, for the long-term value of the outstanding loan to Sirius XM Canada.

Sirius XM Canada paid gross dividends to us of less than\$1 during each of the three months ended September 30, 2019 and 2018, and \$1 and \$2 during the nine months ended September 30, 2019 and 2018, respectively. Dividends are first recorded as a reduction to our investment balance in Sirius XM Canada to the extent a balance exists and then as Other (expense) income for any remaining portion.

We recorded revenue from Sirius XM Canada as Other revenue in our unaudited consolidated statements of comprehensive income of \$25 during each of the three months ended September 30, 2019 and 2018, and \$73 and \$73 for the nine months ended September 30, 2019 and 2018, respectively.

Pandora

The \$523 preferred stock investment in Pandora as of December 31, 2018 was canceled in conjunction with the Pandora Acquisition. Refer to Note 2 for information on this acquisition.

(Dollars and shares in millions, except per share amounts)

(12) Debt

Our debt as of September 30, 2019 and December 31, 2018 consisted of the following:

| | | | | | | | | Carrying value ^(a) at | | | | | | |
|----------------------|----------------------|--|---|---|-------------------|-------------------|-------|----------------------------------|----|-------|--|--|--|--|
| Issuer / Borrower | | | Principal Amount at September 30, 2019 | s | eptember 30, 2019 | December 31, 2018 | | | | | | | | |
| Pandora (b) (c) | December 2015 | 1.75% Convertible Senior Notes | December 1, 2020 | semi-annually on June 1 and December 1 | \$ | 1 | \$ | 1 | \$ | _ | | | | |
| Sirius XM (d) | July 2017 | 3.875% Senior Notes | August 1, 2022 | semi-annually on February 1 and August 1 | | 1,000 | | 995 | | 994 | | | | |
| Sirius XM (d) | May 2013 | 4.625% Senior Notes | May 15, 2023 | semi-annually on May 15 and November 15 | | 500 | | 498 | | 497 | | | | |
| Pandora (b) (e) | June 2018 | 1.75% Convertible Senior Notes | December 1, 2023 | semi-annually on June 1 and December 1 | | 193 | | 161 | | _ | | | | |
| Sirius XM (d) (h) | May 2014 | 6.00% Senior Notes | July 15, 2024 | semi-annually on January 15 and July 15 | January 15 and | | | _ | | 1,490 | | | | |
| Sirius XM (d) (i) | July 2019 | 4.625% Senior Notes | July 15, 2024 | semi-annually on 1,500 January 15 and July 15 | | | 1,484 | | _ | | | | | |
| Sirius XM (d) | March 2015 | 5.375% Senior Notes | April 15, 2025 | semi-annually on April 15 and October 15 | April 15 and | | | 993 | | 992 | | | | |
| Sirius XM (d) | May 2016 | 5.375% Senior Notes | July 15, 2026 | semi-annually on January 15 and July 15 | | 1,000 | | 992 | | 991 | | | | |
| Sirius XM (d) | July 2017 | 5.00% Senior Notes | August 1, 2027 | semi-annually on February 1 and August 1 | | 1,500 | | 1,488 | | 1,487 | | | | |
| Sirius XM (d) (g) | June 2019 | 5.500% Senior Notes | July 1, 2029 | semi-annually on January 1 and July 1 | | 1,250 | | 1,236 | | _ | | | | |
| Sirius XM (f) | December 2012 | Senior Secured Revolving Credit Facility (the "Credit Facility") | June 29, 2023 | variable fee paid quarterly | | | | 65 | | 439 | | | | |
| Sirius XM | Various | Finance leases | Various | n/a | | n/a | | 3 | | 5 | | | | |
| Total Debt | | | | | | | | 7,916 | | 6,895 | | | | |
| Less: tot | al current maturitie | s | | | | | | 2 | | 3 | | | | |
| Less: tot | al deferred financir | ng costs | | | | | | 10 | | 7 | | | | |
| Total long-to | erm debt | | | | | | \$ | 7,904 | \$ | 6,885 | | | | |

- (a) The carrying value of the obligations is net of any remaining unamortized original issue
- (b) Holdings has unconditionally guaranteed all of the payment obligations of Pandora under these notes.
- (c) We acquired \$152 in principal amount of the 1.75% Convertible Senior Notes due 2020 as part of the Pandora Acquisition. On February 14, 2019, Pandora announced a tender offer to repurchase for cash any and all of its outstanding 1.75% Convertible Senior Notes due 2020 at a price equal to 100% of the aggregate principal amount thereof plus accrued and unpaid interest thereon to, but not including, the repurchase date. On March 18, 2019, we purchased \$151 in aggregate principal amount of the 1.75% Convertible Senior Notes due 2020 that had been validly tendered and not validly withdrawn in the repurchase offer. We recorded a \$1 Loss on extinguishment of debt in connection with this transaction. In addition, we unwound a capped call security acquired as part of the Pandora Acquisition in March 2019 for \$3.
- (d) All material domestic subsidiaries, including Pandora and its subsidiaries, that guarantee the Credit Facility have guaranteed these
- (e) We acquired \$193 in principal amount of the 1.75% Convertible Senior Notes due 2023 as part of the Pandora Acquisition. We allocate the principal amount of the 1.75% Convertible Senior Notes due 2023 between the liability and equity components. The value assigned to the debt components of the 1.75% Convertible Senior Notes due 2023 is the estimated fair value as of the issuance date of similar debt without the conversion feature. The difference between the fair value of the debt and this estimated fair value represents the value which has been assigned to the equity component. The equity component is recorded to additional paid-in capital and is not

(Dollars and shares in millions, except per share amounts)

remeasured as long as it continues to meet the conditions for equity classification. The excess of the principal amount of the Notes over the carrying amount of the liability component is recorded as a debt discount and is being amortized to interest expense using the effective interest method through the December 1, 2023 maturity date. The 1.75% Convertible Senior Notes due 2023 were not convertible into common stock and not redeemable as of September 30, 2019. As a result, we have classified the debt as Long-term within our unaudited consolidated balance sheets.

- (f) The \$1,750 Credit Facility expires in June 2023. Sirius XM's obligations under the Credit Facility are guaranteed by certain of its material domestic subsidiaries, including Pandora and its subsidiaries, and are secured by a lien on substantially all of Sirius XM's assets and the assets of its material domestic subsidiaries. Interest on borrowings is payable on a monthly basis and accrues at a rate based on LIBOR plus an applicable rate. Sirius XM is also required to pay a variable fee on the average daily unused portion of the Credit Facility which is payable on a quarterly basis. The variable rate for the unused portion of the Credit Facility was 0.25% per annum as of September 30, 2019. All of Sirius XM's outstanding borrowings under the Credit Facility are classified as Long-term debt within our unaudited consolidated balance sheets due to the long-term maturity of this debt. Additionally, the amount available for future borrowing under the Credit Facility is reduced by letters of credit issued for the benefit of Pandora, which were \$1 as of September 30, 2019.
- (g) On June 7, 2019, Sirius XM issued \$1,250 aggregate principal amount of the 5.500% Senior Notes due 2029 with a net original issuance discount and deferred financing costs in the aggregate of \$16.
- (h) On July 18, 2019, Sirius XM redeemed \$1,500 in outstanding principal amount of the 6.00% Senior Notes due 2024 for an aggregate purchase price, including premium and interest, of \$1,546. We recognized \$56 to Loss on extinguishment of debt, consisting primarily of unamortized discount, deferred financing fees and redemption premium, as a result of this redemption.
- (i) On July 2, 2019 Sirius XM issued \$1,500 aggregate principal amount of the 4.625% Senior Notes due 2024 with a net original issuance discount and deferred financing costs in the aggregate of \$19.

Covenants and Restrictions

Under the Credit Facility, Sirius XM, our wholly owned subsidiary, must comply with a debt maintenance covenant that it cannot exceed a total leverage ratio, calculated as consolidated total debt to consolidated operating cash flow, of 5.0 to 1.0. The Credit Facility generally requires compliance with certain covenants that restrict Sirius XM's ability to, among other things, (i) incur additional indebtedness, (ii) incur liens, (iii) pay dividends or make certain other restricted payments, investments or acquisitions, (iv) enter into certain transactions with affiliates, (v) merge or consolidate with another person, (vi) sell, assign, lease or otherwise dispose of all or substantially all of Sirius XM's assets, and (vii) make voluntary prepayments of certain debt, in each case subject to exceptions.

The indentures governing Sirius XM's notes restrict Sirius XM's non-guarantor subsidiaries' ability to create, assume, incur or guarantee additional indebtedness without such non-guarantor subsidiary guaranteeing each such series of notes on a pari passu basis. The indentures governing the notes also contain covenants that, among other things, limit Sirius XM's ability and the ability of its subsidiaries to create certain liens; enter into sale/leaseback transactions; and merge or consolidate.

Under Sirius XM's debt agreements, the following generally constitute an event of default: (i) a default in the payment of interest; (ii) a default in the payment of principal; (iii) failure to comply with covenants; (iv) failure to pay other indebtedness after final maturity or acceleration of other indebtedness exceeding a specified amount; (v) certain events of bankruptcy; (vi) a judgment for payment of money exceeding a specified aggregate amount; and (vii) voidance of subsidiary guarantees, subject to grace periods where applicable. If an event of default occurs and is continuing, our debt could become immediately due and payable.

Pandora Convertible Notes

Pandora's 1.75% Convertible Senior Notes due 2020 (the "Pandora 2020 Notes") and Pandora's1.75% Convertible Senior Notes due 2023 (the "Pandora 2023 Notes" and, together with the Pandora 2020 Notes, the "Pandora Convertible Notes") are unsecured, senior obligations of Pandora. Holdings has guaranteed the payment and performance obligations of Pandora under the Pandora Convertible Notes and the indentures governing the Pandora Convertible Notes.

The Pandora 2020 Notes will mature on December 1, 2020, unless earlier repurchased or redeemed by Pandora or converted in accordance with their terms. Upon consummation of the Pandora Acquisition, the conversion rate applicable to the Pandora 2020 Notes was 87.7032 shares of Holdings' common stock per\$1,000 principal amount of the Pandora 2020 Notes. Pandora has irrevocably elected and determined to settle all conversion obligations from and after February 1, 2019 with respect to the Pandora 2020 Notes solely in cash. During the nine months ended September 30, 2019, Pandora purchased \$151 in aggregate principal amount of the Pandora 2020 Notes. See footnote (c) to the table above.

(Dollars and shares in millions, except per share amounts)

The Pandora 2023 Notes will mature on December 1, 2023, unless earlier repurchased or redeemed by Pandora or converted in accordance with their terms. Upon consummation of the Pandora Acquisition, the conversion rate applicable to the Pandora 2023 Notes was 150.4466 shares of Holdings' common stock per\$1,000 principal amount of the Pandora 2023 Notes.

The indentures governing the Pandora Convertible Notes contain covenants that limit Pandora's ability to merge or consolidate and provide for customary events of default, which include nonpayment of principal or interest, breach of covenants, payment defaults or acceleration of other indebtedness and certain events of bankruptcy.

At September 30, 2019 and December 31, 2018, we were in compliance with our debt covenants.

(13) Stockholders' Equity

Common Stock, par value \$0.001 per share

We are authorized to issue up to 9,000 shares of common stock. There were 4,434 and 4,346 shares of common stock issued and 4,433 and 4,346 shares outstanding on September 30, 2019 and December 31, 2018, respectively. As part of the Pandora Acquisition, we issued 392 shares of our common stock.

As of September 30, 2019, there were 310 shares of common stock reserved for issuance in connection with outstanding stock based awards to be granted to members of our board of directors, employees and third parties.

Quarterly Dividends

During the nine months ended September 30, 2019, we declared and paid the following dividends:

| Declaration Date | Dividend Per Share | Record Date | | Total Amount | Payment Date |
|------------------|--------------------|-------------------|----|--------------|-------------------|
| January 29, 2019 | \$ 0.0121 | February 11, 2019 | \$ | 57 | February 28, 2019 |
| April 23, 2019 | \$ 0.0121 | May 10, 2019 | \$ | 56 | May 31, 2019 |
| July 16, 2019 | \$ 0.0121 | August 9, 2019 | \$ | 54 | August 30, 2019 |

Stock Repurchase Program

As of September 30, 2019, our board of directors had approved for repurchase an aggregate of \$14,000 of our common stock. Our board of directors did not establish an end date for this stock repurchase program. Shares of common stock may be purchased from time to time on the open market, pursuant to pre-set trading plans meeting the requirements of Rule 10b5-1 under the Exchange Act, in privately negotiated transactions, including transactions with Liberty Media and its affiliates, or otherwise. As of September 30, 2019, our cumulative repurchases since December 2012 under our stock repurchase program totaled 3,018 shares for \$12,640, and \$1,360 remained available for future share repurchases under our stock repurchase program.

The following table summarizes our total share repurchase activity for thenine months ended:

| | Septembe | 2019 | Septemb | 018 | | | | |
|-----------------------------|----------|------|---------|--------|--------------|-----|--|--|
| Share Repurchase Type | Shares | | Amount | Shares | Amount 651 | | | |
| Open Market Repurchases (a) | 335 | \$ | 1,966 | 104 | \$ | 651 | | |

(a) As of September 30, 2019, \$7 of common stock repurchases had not settled, nor been retired, and were recorded as Treasury stock within our unaudited consolidated balance sheets and unaudited consolidated statement of stockholders' equity (deficit). For a discussion of subsequent events refer to Note 18.

Preferred Stock, par value \$0.001 per share

We are authorized to issue up to 50 shares of undesignated preferred stock with a liquidation preference of \$0.001 per share. There were no shares of preferred stock issued or outstanding as of September 30, 2019 and 2018.

(Dollars and shares in millions, except per share amounts)

(14) Benefit Plans

We recognized share-based payment expense of \$65 and \$29 for the three months ended September 30, 2019 and 2018, respectively, and \$192 and \$100 for the nine months ended September 30, 2019 and 2018, respectively. This amount includes \$21 of share-based compensation expense recorded in Acquisition and other related costs in our unaudited consolidated statements of comprehensive income during the nine months ended September 30, 2019.

2015 Long-Term Stock Incentive Plan

In May 2015, our stockholders approved the Sirius XM Holdings Inc. 2015 Long-Term Stock Incentive Plan (the "2015 Plan"). Employees, consultants and members of our board of directors are eligible to receive awards under the 2015 Plan. The 2015 Plan provides for the grant of stock options, restricted stock awards, restricted stock units and other stock-based awards that the compensation committee of our board of directors deems appropriate. Stock-based awards granted under the 2015 Plan are generally subject to a graded vesting requirement, which is generally three to four years from the grant date. Stock options generally expireten years from the date of grant. Restricted stock units include performance-based restricted stock units ("PRSUs"), the vesting of which are subject to the achievement of performance goals and the employee's continued employment and generally cliff vest on the third anniversary of the grant date. Each restricted stock unit entitles the holder to receive one share of common stock upon vesting. As of September 30, 2019, 149 shares of common stock were available for future grants under the 2015 Plan.

In connection with the Pandora Acquisition, we assumed all shares available for issuance (including any shares that later become available for issuance in accordance with the terms of the applicable plans) under each of the 2014 Stock Incentive Plan of AdsWizz Inc., the Pandora Media, Inc. 2011 Equity Incentive Plan, the Pandora Media, Inc. 2004 Stock Plan and the TheSavageBeast.com, Inc. 2000 Stock Incentive Plan, which were previously approved by stockholders of Pandora or the applicable adopting entity. All shares available under these stock plans became additional shares available for grant pursuant to the terms of the 2015 Plan (as adjusted, to the extent appropriate, to reflect the application of the exchange ratio). Subject to certain limitations set forth in the 2015 Plan, such shares may be used for awards under the 2015 Plan.

Other Plans

We maintain six additional share-based benefit plans — the Sirius XM Radio Inc. 2009 Long-Term Stock Incentive Plan, the Amended and Restated Sirius Satellite Radio 2003 Long-Term Stock Incentive Plan, the 2014 Stock Incentive Plan of AdsWizz Inc., the Pandora Media, Inc. 2011 Equity Incentive Plan, the Pandora Media, Inc. 2004 Stock Plan and the TheSavageBeast.com, Inc. 2000 Stock Incentive Plan. Excluding dividend equivalent units granted as a result of a declared dividend, no further awards may be made under these plans.

The following table summarizes the weighted-average assumptions used to compute the fair value of options granted to employees:

| | For the Three Months Ended September 30, | For the Nine Months | Ended September 30, |
|----------------------------------|--|---------------------|---------------------|
| | 2018 | 2019 | 2018 |
| Risk-free interest rate | 2.8% | 2.5% | 2.7% |
| Expected life of options — years | 4.98 | 3.36 | 4.44 |
| Expected stock price volatility | 23% | 26% | 23% |
| Expected dividend yield | 0.6% | 0.8% | 0.7% |

There were no options granted to employees during the three months ended September 30, 2019.

(Dollars and shares in millions, except per share amounts)

The following table summarizes stock option activity under our share-based plans for thenine months ended September 30, 2019:

| | Options | 1 | Weighted- Average Exercise Price Per Share | Weighted- Average Remaining Contractual Term (Years) | Aggregate Intrinsic Value |
|--|---------|----|---|--|---------------------------------|
| Outstanding as of December 31, 2018 | 243 | \$ | 4.22 | _ | |
| Options granted in connection with Pandora Acquisition | 7 | \$ | 3.85 | | |
| Granted | 13 | \$ | 6.00 | | |
| Exercised | (32) | \$ | 3.48 | | |
| Forfeited, cancelled or expired | (3) | \$ | 5.50 | | |
| Outstanding as of September 30, 2019 | 228 | \$ | 4.39 | 5.75 | \$ 440 |
| Exercisable as of September 30, 2019 | 159 | \$ | 3.93 | 5.08 | \$ 374 |

The weighted average grant date fair value per share of stock options granted during thenine months ended September 30, 2019 was \$1.26. The total intrinsic value of stock options exercised during the nine months ended September 30, 2019 and 2018 was \$83 and \$206, respectively. During the nine months ended September 30, 2019, the number of net settled shares which were issued as a result of stock option exercises was 10.

In connection with the Pandora Acquisition, each option granted by Pandora under its stock incentive plans to purchase shares of Pandora common stock, whether vested or unvested, was assumed and converted into an option to purchase shares of our common stock, with appropriate adjustments (based on the 1.44 exchange ratio) to the exercise price and number of shares of our common stock subject to such option, and has the same vesting schedule and exercise conditions as in effect as of immediately prior to the closing of the Pandora Acquisition; provided, that any Pandora stock option that had an exercise price per share that was equal to or greater than the value, at the closing of the Pandora Acquisition, of our common stock issued as merger consideration in exchange for each share of Pandora common stock, was canceled without payment. We recorded \$8 to Goodwill related to pre-acquisition replacement equity awards attributable to pre-combination service.

We recognized share-based payment expense associated with stock options of \$14 and \$11 for the three months ended September 30, 2019 and 2018, respectively, and \$49 and \$52 for the nine months ended September 30, 2019 and 2018, respectively.

The following table summarizes the restricted stock unit, including PRSU, activity under our share-based plans for thenine months ended September 30, 2019:

| | Shares | Grant Date Fair Value Per Share |
|--|--------|---------------------------------------|
| Nonvested as of December 31, 2018 | 35 | \$ 5.50 |
| Units granted in connection with Pandora Acquisition | 48 | \$ 5.83 |
| Granted | 37 | \$ 5.97 |
| Vested | (32) | \$ 5.48 |
| Forfeited | (6) | \$ 5.82 |
| Nonvested as of September 30, 2019 | 82 | \$ 5.89 |
| | | |

The total intrinsic value of restricted stock units, including PRSUs, vesting during thenine months ended September 30, 2019 and 2018 was \$192 and \$76, respectively. During the nine months ended September 30, 2019, the number of net settled shares which were issued as a result of restricted stock units vesting totaled 20. During the nine months ended September 30, 2019, we granted 5 PRSUs to certain employees. We believe it is probable that the performance target applicable to these PRSUs will be achieved.

In connection with the Pandora Acquisition, each unvested restricted stock unit granted by Pandora under its stock incentive plans was assumed and converted into an unvested restricted stock unit of Holdings, with appropriate adjustments

(Dollars and shares in millions, except per share amounts)

(based on the 1.44 exchange ratio) to the number of shares of our common stock to be received, and has the same vesting schedule and settlement date as in effect as of immediately prior to the closing of the Pandora Acquisition. We recorded \$62 to Goodwill related to pre-acquisition replacement equity awards attributable to pre-combination service.

In connection with the cash dividend paid during thenine months ended September 30, 2019, we granted less than 1 restricted stock units, including PRSUs, in accordance with the terms of existing award agreements. These grants did not result in any additional incremental share-based payment expense being recognized during the nine months ended September 30, 2019.

We recognized share-based payment expense associated with restricted stock units, including PRSUs, of \$51 and \$18 for the three months ended September 30, 2019 and 2018, respectively, and \$143 and \$48 for the nine months ended September 30, 2019 and 2018, respectively.

Total unrecognized compensation costs related to unvested share-based payment awards for stock options and restricted stock units, including PRSUs, granted to employees, members of our board of directors and third parties at September 30, 2019 and December 31, 2018 was \$476 and \$254, respectively. The total unrecognized compensation costs at September 30, 2019 are expected to be recognized over a weighted-average period of 2.3 years.

401(k) Savings Plans

Sirius XM Radio Inc. 401(k) Savings Plan

Sirius XM sponsors the Sirius XM Radio Inc. 401(k) Savings Plan (the "Sirius XM Plan") for eligible employees. The Sirius XM Plan allows eligible employees to voluntarily contribute from 1% to 50% of their pre-tax eligible earnings, subject to certain defined limits. We match50% of an employee's voluntary contributions per pay period on the first 6% of an employee's pre-tax salary up to a maximum of 3% of eligible compensation. We may also make additional discretionary matching, true-up matching and non-elective contributions to the Sirius XM Plan. Employer matching contributions under the Sirius XM Plan vest at a rate of 33.33% for each year of employment and are fully vested after three years of employment for all current and future contributions. Our cash employer matching contributions are not used to purchase shares of our common stock on the open market, unless the employee elects our common stock as their investment option for this contribution. We recognized expenses of \$2 for both the three months ended September 30, 2019 and 2018, in connection with the Sirius XM Plan.

Pandora Media, LLC 401(k) Profit Sharing Plan and Trust

Pandora sponsors the Pandora Media, LLC 401(k) Profit Sharing Plan and Trust (the "Pandora Plan") for eligible employees. The Pandora Plan allows eligible employees to voluntarily contribute from 1% to 75% of their pre-tax eligible earnings, subject to certain defined limits. There is no employer matching of employee contributions under the Pandora Plan.

Sirius XM Holdings Inc. Deferred Compensation Plan

The Sirius XM Holdings Inc. Deferred Compensation Plan (the "DCP") allows members of our board of directors and certain eligible employees to defer all or a portion of their base salary, cash incentive compensation and/or board of directors' cash compensation, as applicable. Pursuant to the terms of the DCP, we may elect to make additional contributions beyond amounts deferred by participants, but we are under no obligation to do so. We have established a grantor (or "rabbi") trust to facilitate the payment of our obligations under the DCP.

Contributions to the DCP, net of withdrawals, for both the three months ended September 30, 2019 and 2018 were less than \$1, and were \$7 for both the nine months ended September 30, 2019 and 2018. As of September 30, 2019 and December 31, 2018, the fair value of the investments held in the trust were \$32 and \$22, respectively, which is included in Other long-term assets in our unaudited consolidated balance sheets and classified as trading securities. Trading gains and losses associated with these investments are recorded in Other (expense) income within our unaudited consolidated statements of comprehensive income. The associated liability is recorded within Other long-term liabilities in our unaudited consolidated balance sheets, and any increase or decrease in the liability is recorded in General and administration expense within our unaudited consolidated statements of comprehensive income. For the three and nine months ended September 30, 2019 and 2018, we recorded an immaterial amount of unrealized gains on investments held in the trust.

(Dollars and shares in millions, except per share amounts)

(15) Commitments and Contingencies

The following table summarizes our expected contractual cash commitments as of September 30, 2019:

| | 2019 | 2020 | 2021 | 2022 | | 2022 | | | 2023 | | 2023 | | 2023 | | 2023 | | hereafter | r Total | |
|---|-----------|-------------|-----------|------|-------|------|-------|----|-------|----|--------|--|------|--|------|--|-----------|---------|--|
| Debt obligations | \$ 1 | \$ 2 | \$ 1 | \$ | 1,000 | \$ | 758 | \$ | 6,250 | \$ | 8,012 | | | | | | | | |
| Cash interest payments | 41 | 400 | 393 | | 393 | | 340 | | 1,024 | | 2,591 | | | | | | | | |
| Satellite and transmission | 63 | 51 | 4 | | 2 | | 1 | | 3 | | 124 | | | | | | | | |
| Programming and content | 73 | 321 | 220 | | 145 | | 82 | | 139 | | 980 | | | | | | | | |
| Sales and marketing | 17 | 46 | 28 | | 21 | | 9 | | 11 | | 132 | | | | | | | | |
| Satellite incentive payments | 4 | 10 | 9 | | 9 | | 9 | | 53 | | 94 | | | | | | | | |
| Operating lease obligations | 13 | 76 | 61 | | 53 | | 46 | | 172 | | 421 | | | | | | | | |
| Advertising sales commitments | 8 | 20 | 15 | | _ | | _ | | _ | | 43 | | | | | | | | |
| Royalties, minimum guarantees and other | 72 | 219 | 135 | | 62 | | 17 | | 7 | | 512 | | | | | | | | |
| Total (1) | \$ 292 | \$ 1,145 | \$ 866 | \$ | 1,685 | \$ | 1,262 | \$ | 7,659 | \$ | 12,909 | | | | | | | | |

(1) The table does not include our reserve for uncertain tax positions, which at September 30, 2019 totaled \$8.

Debt obligations. Debt obligations include principal payments on outstanding debt and finance lease obligations.

Cash interest payments. Cash interest payments include interest due on outstanding debt and capital lease payments through maturity.

Satellite and transmission. We have entered into agreements with several third parties to design, build, launch and insuretwo satellites, SXM-7 and SXM-8. We also have entered into agreements with third parties to operate and maintain satellite telemetry, tracking and control facilities and certain components of our terrestrial repeater networks.

Programming and content. We have entered into various programming and content agreements. Under the terms of these agreements, our obligations include fixed payments, advertising commitments and revenue sharing arrangements. In certain of these agreements, the future revenue sharing costs are dependent upon many factors and are difficult to estimate; therefore, they are not included in our minimum contractual cash commitments.

Sales and marketing. We have entered into various marketing, sponsorship and distribution agreements to promote our brands and are obligated to make payments to sponsors, retailers, automakers, radio manufacturers and other third parties under these agreements. Certain programming and content agreements also require us to purchase advertising on properties owned or controlled by the licensors.

Satellite incentive payments. Boeing Satellite Systems International, Inc., the manufacturer of certain of our in-orbit satellites, may be entitled to future in-orbit performance payments upon XM-3 and XM-4 meeting their fifteen-year design life, which we expect to occur. Boeing may also be entitled to up to \$10 of additional incentive payments if our XM-4 satellite continues to operate above baseline specifications during the five years beyond the satellite's fifteen-year design life.

Maxar Technologies (formerly Space Systems/Loral), the manufacturer of certain of our in-orbit satellites, may be entitled to future in-orbit performance payments upon XM-5, SIRIUS FM-5 and SIRIUS FM-6 meeting their fifteen-year design life, which we expect to occur.

Operating lease obligations. We have entered into both cancelable and non-cancelable operating leases for office space, terrestrial repeaters, data centers and equipment. These leases provide for minimum lease payments, additional operating expense charges, leasehold improvements and rent escalations that have initial terms ranging from one to fifteen years, and certain leases have options to renew.

(Dollars and shares in millions, except per share amounts)

Advertising Sales Commitments. We have entered into agreements with third parties that contain minimum advertising sales guarantees and require that we make guaranteed payments. As of September 30, 2019, we had future minimum guarantee commitments of \$43, of which \$8 will be paid in 2019 and the remainder will be paid thereafter. On a quarterly basis, we record the greater of the cumulative actual expense incurred or the cumulative minimum guarantee based on our forecast for the minimum guarantee period. The minimum guarantee period is the period of time that the minimum guarantee relates to, as specified in the agreement, which may be annual or a longer period.

Royalties, Minimum Guarantees and Other. We have entered into music royalty arrangements that include fixed payments. Certain of our content agreements also contain minimum guarantees and require that we make upfront minimum guaranteed payments. During the nine months ended September 30, 2019, we prepaid \$22 in content costs related to minimum guarantees. As of September 30, 2019, we have future fixed minimum guarantee commitments of \$80, of which \$18 will be paid in 2019 and the remainder will be paid thereafter. On a quarterly basis, we record the greater of the cumulative actual content costs incurred or the cumulative minimum guarantee based on forecasted usage for the minimum guarantee period. The minimum guarantee period of time that the minimum guarantee relates to, as specified in each agreement, which may be annual or a longer period. The cumulative minimum guarantee, based on forecasted usage, considers factors such as listening hours, revenue, subscribers and other terms of each agreement that impact our expected attainment or recoupment of the minimum guarantees based on the relative attribution method.

Several of our content agreements also include provisions related to the royalty payments and structures of those agreements relative to other content licensing arrangements, which, if triggered, could cause our payments under those agreements to escalate. In addition, record labels, publishers and performing rights organizations ("PROs") with whom we have entered into direct license agreements have the right to audit our content payments, and any such audit could result in disputes over whether we have paid the proper content costs.

We have also entered into various agreements with third parties for general operating purposes. The cost of our common stock acquired in our capital return program but not paid for as of September 30, 2019 was also included in this category.

In addition to the minimum contractual cash commitments described above, we have entered into other variable cost arrangements. These future costs are dependent upon many factors and are difficult to anticipate; however, these costs may be substantial. We may enter into additional programming, distribution, marketing and other agreements that contain similar variable cost provisions. We also have a surety bond of approximately \$45 primarily used as security against non-performance in the normal course of business. We do not have any other significant off-balance sheet financing arrangements that are reasonably likely to have a material effect on our financial condition, results of operations, liquidity, capital expenditures or capital resources.

Legal Proceedings

In the ordinary course of business, we are a defendant or party to various claims and lawsuits, including those discussed below.

We record a liability when we believe that it is both probable that a liability will be incurred, and the amount of loss can be reasonably estimated. We evaluate developments in legal matters that could affect the amount of liability that has been previously accrued and make adjustments as appropriate. Significant judgment is required to determine both probability and the estimated amount of a loss or potential loss. We may be unable to reasonably estimate the reasonably possible loss or range of loss for a particular legal contingency for various reasons, including, among others, because: (i) the damages sought are indeterminate; (ii) the proceedings are in the relative early stages; (iii) there is uncertainty as to the outcome of pending proceedings (including motions and appeals); (iv) there is uncertainty as to the likelihood of settlement and the outcome of any negotiations with respect thereto; (v) there remain significant factual issues to be determined or resolved; (vi) the relevant law is unsettled; or (vii) the proceedings involve novel or untested legal theories. In such instances, there may be considerable uncertainty regarding the ultimate resolution of such matters, including the likelihood or magnitude of a possible eventual loss, if any.

Telephone Consumer Protection Act Suits. On March 13, 2017, Thomas Buchanan, individually and on behalf of all others similarly situated, filed a class action complaint against Sirius XM in the United States District Court for the Northern District of Texas, Dallas Division. The plaintiff in this action alleges that Sirius XM violated the Telephone Consumer

(Dollars and shares in millions, except per share amounts)

Protection Act of 1991 (the "TCPA") by, among other things, making telephone solicitations to persons on the National Do-Not-Call registry, a database established to allow consumers to exclude themselves from telemarketing calls unless they consent to receive the calls in a signed, written agreement, and making calls to consumers in violation of our internal Do-Not-Call registry. The plaintiff is seeking various forms of relief, including statutory damages of five hundred dollars for each violation of the TCPA or, in the alternative, treble damages of up to fifteen hundred dollars for each knowing and willful violation of the TCPA and a permanent injunction prohibiting us from making, or having made, any calls to land lines that are listed on the National Do-Not-Call registry or our internal Do-Not-Call registry.

Following a mediation, in April 2019, Sirius XM entered into an agreement to settle this purported class action suit. The settlement resolves the claims of consumers for the period October 2013 through January 2019. As part of the settlement, Sirius XM paid \$25 into a non-reversionary settlement fund from which cash to class members, notice, administrative costs, and attorney's fees and costs will be paid. The settlement also contemplates that Sirius XM will provide three months of service to its All Access subscription package for those members of the class that elect to receive it, in lieu of cash, at no cost to those class members and who are not active subscribers at the time of the distribution. The availability of this three-month service option will not diminish the\$25 common fund. As part of the settlement, Sirius XM will also implement certain changes relating to its "Do-Not-Call" practices and telemarketing programs. Settlement of this matter is subject to, among other things, final approval by the Court.

Pre-1972 Sound Recording Litigation. On October 2, 2014, Flo & Eddie Inc. filed a class action suit against Pandora in the federal district court for the Central District of California. The complaint alleges a violation of California Civil Code Section 980, unfair competition, misappropriation and conversion in connection with the public performance of sound recordings recorded prior to February 15, 1972 (which we refer to as, "pre-1972 recordings"). On December 19, 2014, Pandora filed a motion to strike the complaint pursuant to California's Anti-Strategic Lawsuit Against Public Participation ("Anti-SLAPP") statute, which following denial of Pandora's motion was appealed to the Ninth Circuit Court of Appeals. In March 2017, the Ninth Circuit requested certification to the California Supreme Court on the substantive legal questions. The California Supreme Court accepted certification. In May 2019, the California Supreme Court issued an order dismissing consideration of the certified questions on the basis that, following the enactment of the Orrin G. Hatch-Bob Goodlatte Music Modernization Act, Pub. L. No. 115-264, 132 Stat. 3676 (2018) (the "MMA"), resolution of the questions posed by the Ninth Circuit Court of Appeals was no longer "necessary to . . . settle an important question of law."

In September and October 2015, Arthur and Barbara Sheridan filed separate class action suits against Pandora in the federal district courts for the Northern District of California and the District of New Jersey. The complaints allege a variety of violations of common law and state copyright statutes, common law misappropriation, unfair competition, conversion, unjust enrichment and violation of rights of publicity arising from allegations that Pandora owes royalties for the public performance of pre-1972 recordings. The *Sheridan* actions in California and New Jersey are currently stayed pending the Ninth Circuit's decision in *Flo & Eddie, Inc. v. Pandora Media, Inc.*

In September 2016, Ponderosa Twins Plus One and others filed a class action suit against Pandora alleging claims similar to those asserted in Flo & Eddie, Inc. v. Pandora Media Inc. This action is also currently stayed in the Northern District of California pending the Ninth Circuit's decision in Flo & Eddie, Inc. v. Pandora Media, Inc.

The MMA grants a newly available federal preemption defense to the claims asserted in the aforementioned lawsuits. In July 2019, Pandora made the required payments and reporting under the MMA for certain of its uses of pre-1972 recordings to avail itself of this federal preemption defense. Based on the federal preemption contained in the MMA (along with other considerations), Pandora asked the Ninth Circuit to order the dismissal of the Flo & Eddie, Inc. v. Pandora Media, Inc. case. On October 17, 2019, the Ninth Circuit Court of Appeals issued a memorandum disposition concluding that the question of whether the MMA preempts Flo and Eddie's claims challenging Pandora's performance of pre-1972 recordings "depends on various unanswered factual questions" and remanded the case to the District Court for further proceedings.

When the stays in the remaining cases - thetwo Sheridan v. Pandora Media, Inc. cases and the Ponderosa Twins Plus One et al. v. Pandora Mediacase - are lifted, Pandora expects to file motions to dismiss those actions as well.

We believe we have substantial defenses to the claims asserted in these actions, and we intend to defend these actions vigorously.

(Dollars and shares in millions, except per share amounts)

Other Matters. In the ordinary course of business, we are a defendant in various other lawsuits and arbitration proceedings, including derivative actions; actions filed by subscribers, both on behalf of themselves and on a class action basis; former employees; parties to contracts or leases; and owners of patents, trademarks, copyrights or other intellectual property. None of these other matters, in our opinion, is likely to have a material adverse effect on our business, financial condition or results of operations.

(16) Segments and Geographic Information

In accordance with FASB ASC Topic 280, Segment Reporting, we disaggregate our operations into two reportable segments: Sirius XM and Pandora. The change in segment reporting is due to the acquisition of Pandora. The financial results of these segments are utilized by the chief operating decision maker, who is our Chief Executive Officer, for evaluating segment performance and allocating resources. Our reportable segments have been determined based on our internal management structure. For additional information on our segments refer to Note 1.

Segment results include the revenues and cost of services which are directly attributable to each segment. There are no indirect revenues or costs incurred that are allocated to the segments. There are planned intersegment advertising campaigns which will be eliminated. We had less than \$1 of intersegment advertising revenue during the three and nine months ended September 30, 2019.

Segment revenue and gross profit were as follows during the periods presented:

For the Three Months Ended September 30, 2019 Sirius XM Pandora Total Revenue Subscriber revenue 1,424 \$ 132 \$ 1,556 Advertising revenue 51 315 366 45 Equipment revenue 45 Other revenue 44 44 1,564 447 2,011 Total revenue Cost of services (a) (597)(273)(870)Segment gross profit 967 174 1,141

The reconciliation between reportable segment gross profit to consolidated income before income tax is as follows:

| | Three Months Ended September 30, 2019 | |
|---|--|--|
| Segment Gross Profit | \$ 1,141 | |
| Subscriber acquisition costs | (101) | |
| Sales and marketing (a) | (210) | |
| Engineering, design and development (a) | (63) | |
| General and administrative (a) | (108) | |
| Depreciation and amortization | (118) | |
| Share-based payment expense | (65) | |
| Total other (expense) income | (160) | |
| Consolidated income before income taxes | \$ 316 | |

⁽a) Share-based payment expense of \$11 related to cost of services, \$23 related to sales and marketing, \$15 related to engineering, design and development and \$16 related to general and administrative has been excluded.

(Dollars and shares in millions, except per share amounts)

For the Nine Months Ended September 30, 2019

| Si | rius XM | | Pandora | | Total |
|----|---------|---------------------------------------|---------------------------------------|--|--|
| | | | | | |
| \$ | 4,196 | \$ | 355 | \$ | 4,551 |
| | 149 | | 784 | | 933 |
| | 127 | | _ | | 127 |
| | 121 | | _ | | 121 |
| | 4,593 | | 1,139 | | 5,732 |
| | (1,761) | | (720) | | (2,481) |
| \$ | 2,832 | \$ | 419 | \$ | 3,251 |
| | \$ \$ | 149 127 121 4,593 (1,761) | \$ 4,196 \$ 149 127 121 4,593 (1,761) | \$ 4,196 \$ 355 149 784 127 — 121 — 4,593 1,139 (1,761) (720) | \$ 4,196 \$ 355 \$ 149 784 127 — 121 — 4,593 1,139 (1,761) (720) |

The reconciliation between reportable segment gross profit to consolidated income before income tax is as follows:

| | Nine Months Ended September 30, 2019 | | |
|---|--------------------------------------|--|--|
| Segment Gross Profit | \$ 3,251 | | |
| Subscriber acquisition costs | (313) | | |
| Sales and marketing (b) | (591) | | |
| Engineering, design and development (b) | (169) | | |
| General and administrative (b) | (332) | | |
| Depreciation and amortization | (344) | | |
| Share-based payment expense | (171) | | |
| Acquisition and other related costs | (83) | | |
| Total other (expense) income | (350) | | |
| Consolidated income before income taxes | \$ 898 | | |

(b) Share-based payment expense of \$30 related to cost of services, \$57 related to sales and marketing, \$37 related to engineering, design and development and \$47 related to general and administrative has been excluded.

A measure of segment assets is not currently provided to the Chief Executive Officer and has therefore not been provided.

As of September 30, 2019, long-lived assets were predominantly located in the United States. No individual foreign country represented a material portion of our consolidated revenue during the three and nine months ended September 30, 2019.

(17) Income

Taxes

We file a consolidated federal income tax return for all of our wholly owned subsidiaries. For thethree months ended September 30, 2019 and 2018, income tax expense was \$70 and \$12, respectively, and \$227 and \$162 for the nine months ended September 30, 2019 and 2018, respectively.

Our effective tax rate for thethree months ended September 30, 2019 and 2018 was 22.2% and 3.3%, respectively. Our effective tax rate for thenine months ended September 30, 2019 and 2018 was 25.3% and 14.9%, respectively. The effective tax rate for the three months ended September 30, 2019 was primarily impacted by the recognition of excess tax benefits related to share based compensation. The effective tax rate for the nine months ended September 30, 2019 was primarily impacted by the increase to the valuation allowance related to the federal research and development credits that are no longer expected to be realizable. The effective tax rate for the three and nine months ended September 30, 2018 was primarily impacted by the recognition of excess tax benefits related to share based compensation and a benefit related to state research and development credits. We estimate our effective tax rate for the year ending December 31, 2019 will be approximately 24%.

(Dollars and shares in millions, except per share amounts)

As of September 30, 2019 and December 31, 2018, we had a valuation allowance related to deferred tax assets of \$86 and \$66, respectively, that were not likely to be realized due to certain net operating loss limitations, including tax credits, and acquired net operating losses that were not more likely than not going to be utilized.

(18) Subsequent

Events

Capital Return Program

For the period from October 1, 2019 to October 29, 2019 we repurchased 9 shares of our common stock on the open market for an aggregate purchase price of 54, including fees and commissions.

On October 10, 2019, our board of directors declared a quarterly dividend on our common stock in the amount o\\$0.01331 per share of common stock payable on November 29, 2019 to stockholders of record as of the close of business on November 8, 2019.

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

All amounts referenced in this Item 2 are in millions, except subscriber amounts are in thousands and per subscriber and per installation amounts are in ones, unless otherwise stated.

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our unaudited consolidated financial statements and related notes included elsewhere in this Quarterly Report on Form 10-Q and with our Annual Report on Form 10-K for the year ended December 31, 2018.

This Quarterly Report on Form 10-Q presents information for Sirius XM Holdings Inc. ("Holdings"). The terms "Holdings," "we," "us," "our," and "our company" as used herein, and unless otherwise stated or indicated by context, refer to Sirius XM Holdings Inc. and its subsidiaries. "Sirius XM" refers to our wholly owned subsidiary Sirius XM Radio Inc. and its subsidiaries. "Pandora" refers to Sirius XM's wholly owned subsidiary Pandora Media, LLC (the successor to Pandora Media, Inc.) and its subsidiaries. Holdings has no operations independent of Sirius XM and Pandora.

Special Note Regarding Forward-Looking Statements

The following cautionary statements identify important factors that could cause our actual results to differ materially from those projected in forward-looking statements made in this Quarterly Report on Form 10-Q and in other reports and documents published by us from time to time. Any statements about our beliefs, plans, objectives, expectations, assumptions, future events or performance are not historical facts and may be forward-looking. These statements are often, but not always, made through the use of words or phrases such as "will likely result," "are expected to," "will continue," "is anticipated," "estimated," "intend," "plan," "projection" and "outlook." Any forward-looking statements are qualified in their entirety by reference to the factors discussed throughout this Quarterly Report on Form 10-Q and in other reports and documents published by us from time to time, including the risk factors described under "Risk Factors" in Part II, Item 1A, of our Quarterly Report on Form 10-Q for the quarter ended March 31, 2019 and "Management's Discussion and Analysis of Financial Condition and Results of Operations" herein and in Part II, Item 7, of our Annual Report on Form 10-K for the year ended December 31, 2018.

Among the significant factors that could cause our actual results to differ materially from those expressed in the forward-looking statements are:

- We face substantial competition and that competition is likely to increase over time
- If our efforts to attract and retain subscribers and listeners, or convert listeners into subscribers, are not successful, our business will be adversely
 affected
- We engage in extensive marketing efforts and the continued effectiveness of those efforts are an important part of our business
- A substantial number of our subscribers periodically cancel their subscriptions and we cannot predict how successful we will be at retaining customers
- Our ability to profitably attract and retain subscribers as our marketing efforts reach more price-sensitive consumers is uncertain
- Our failure to convince advertisers of the benefits of our ad-supported service could harm our business
- If we are unable to maintain revenue growth from our advertising products, particularly in mobile advertising, our results of operations will be adversely
 affected
- If we fail to accurately predict and play music, comedy or other content that our listeners enjoy, we may fail to retain existing and attract new listeners
- If we fail to protect the security of personal information about our customers, we could be subject to costly government enforcement actions and private litigation and our reputation could suffer
- Interruption or failure of our information technology and communications systems could impair the delivery of our service and harm our business
- Privacy and data security laws and regulations may impose legal liabilities and may hinder our ability to sell
 advertising
- Consumer protection laws and our failure to comply with them could damage our business
- We rely on third parties for the operation of our business, and the failure of third parties to perform could adversely affect our business
- Our business depends in part upon the auto industry
- Our Pandora business depends in part upon consumer electronics manufacturers
- The market for music rights is changing and is subject to significant
 The market for music rights is changing and is subject to significant
- Our ability to offer interactive features in our Pandora services depends upon maintaining licenses with copyright owners

- The rates we must pay for "mechanical rights" to use musical works on our Pandora service have increased substantially and these new rates may adversely affect our
- Our use of pre-1972 sound recordings on our Pandora service could result in additional costs
- Failure of our satellites would significantly damage our

business

- Our Sirius XM service may experience harmful interference from new wireless
- Failure to comply with FCC requirements could damage our
- business
- Economic conditions, including advertising budgets and discretionary spending, may adversely affect our business and operating results
- If we are unable to attract and retain qualified personnel, our business could be harmed
- We may not realize the benefits of acquisitions or other strategic investments and initiatives, including the acquisition of Pandora
- We may from time to time modify our business plan, and these changes could adversely affect us and our financial
- We have a significant amount of indebtedness, and our debt contains certain covenants that restrict our operations
- Our facilities could be damaged by natural catastrophes or terrorist activities
- The unfavorable outcome of pending or future litigation could have an adverse impact on our operations and financial condition
- Failure to protect our intellectual property or actions by third parties to enforce their intellectual property rights could substantially harm our business and operating results
- Some of our services and technologies may use "open source" software, which may restrict how we use or distribute our services or require that we release the source code subject to those licenses
- Rapid technological and industry changes and new entrants could adversely impact our
- Existing or future laws and regulations could harm our

business

- We may be exposed to liabilities that other entertainment service providers would not customarily be subject to
- Our business and prospects depend on the strength of our brands
- We are a "controlled company" within the meaning of the NASDAQ listing rules and, as a result, qualify for, and rely on, exemptions from certain corporate
- While we currently pay a quarterly cash dividend to holders of our common stock, we may change our dividend policy at any
- Our principal stockholder has significant influence, including over actions requiring stockholder approval, and its interests may differ from the interests of other holders of our common stock

Because the risk factors referred to above could cause actual results or outcomes to differ materially from those expressed in any forward-looking statements made by us or on our behalf, you should not place undue reliance on any of these forward-looking statements. In addition, any forward-looking statement speaks only as of the date on which it is made, and we undertake no obligation to update any forward-looking statement or statements to reflect events or circumstances after the date on which the statement is made, to reflect the occurrence of unanticipated events or otherwise, except as required by law. New factors emerge from time to time, and it is not possible for us to predict which will arise or to assess with any precision the impact of each factor on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements.

Recent Developments

On February 1, 2019, through a series of transactions, Pandora Media, Inc., became an indirect wholly owned subsidiary of Sirius XM and continues to operate as Pandora Media, LLC (the "Pandora Acquisition").

Each share of Pandora common stock, par value \$0.0001 per share, outstanding immediately prior to the consummation of the transactions, was converted into 1.44 shares (the "Exchange Ratio") of our common stock.

Further, pursuant to the transactions:

Each option granted by Pandora under its stock incentive plans to purchase shares of Pandora common stock, whether vested or unvested, was assumed and converted into an option to purchase shares of our common stock, with appropriate adjustments (based on the Exchange Ratio) to the exercise price and number of shares of our common stock subject to such option, and has the same vesting schedule and exercise conditions as in effect as of immediately prior to the closing of the transactions; provided that any Pandora stock option that had an exercise price per share that was equal to or greater than the value, at the closing of the transactions, of our common stock issued as merger consideration in exchange for each share of Pandora common stock, was canceled without payment therefore; and

• Each unvested restricted stock unit granted by Pandora under its stock incentive plans was assumed and converted into an unvested restricted stock unit of Holdings, with appropriate adjustments (based on the Exchange Ratio) to the number of shares of our common stock to be received, and has the same vesting schedule and settlement date as in effect as of immediately prior to the closing of the transactions.

In connection with the transaction, Holdings issued in the aggregate 392 shares of its common stock and assumed \$345 in aggregate principal amount of Pandora's outstanding debt.

Executive Summary

We operate two complementary audio entertainment businesses - our Sirius XM business and our Pandora business.

Sirius XM

Our Sirius XM business features music, sports, entertainment, comedy, talk, news, traffic and weather channels, as well as infotainment services, in the United States on a subscription fee basis. The Sirius XM service is distributed through our two proprietary satellite radio systems and through the internet via applications for mobile devices, home devices and other consumer electronic equipment. Satellite radios are primarily distributed through automakers, retailers and our website. Our Sirius XM service is also available through our user interface, which we call "360L," that combines our satellite and streaming services into a single, cohesive in-vehicle entertainment experience. The primary source of revenue from our Sirius XM business is generated from subscription fees, with most of our customers subscribing to monthly, quarterly, semi-annual or annual plans. We also derive revenue from advertising on select non-music channels, direct sales of our satellite radios and accessories, and other ancillary services. As of September 30, 2019, our Sirius XM business had approximately 34.6 million subscribers.

In addition to our audio entertainment businesses, we provide connected vehicle services to several automakers and directly to consumers through aftermarket devices. These services are designed to enhance the safety, security and driving experience of consumers. We also offer a suite of data services that includes graphical weather, fuel prices, sports schedules and scores and movie listings, a traffic information service that includes information as to road closings, traffic flow and incident data to consumers with compatible in-vehicle navigation systems, and real-time weather services designed for improving situational awareness in vehicles, boats and planes.

Sirius XM also holds a 70% equity interest and 33% voting interest in Sirius XM Canada Holdings Inc. ("Sirius XM Canada"). Sirius XM Canada's subscribers are not included in our subscriber count or subscriber-based operating metrics.

Pandora

Our Pandora business operates a music, comedy and podcast streaming discovery platform, offering a personalized experience for each listener wherever and whenever they want to listen, whether through mobile devices, car speakers or connected devices. Pandora enables listeners to create personalized stations and playlists, discover new content, hear artist- and expert-curated playlists, podcasts and select Sirius XM content as well as search and play songs and albums on-demand. Pandora is available as an adsupported radio service, a radio subscription service, called Pandora Plus, and an on-demand subscription service, called Pandora Premium. As of September 30, 2019, Pandora had approximately 6.3 million subscribers. The majority of revenue from our Pandora business is generated from advertising on our Pandora ad-supported radio service. In addition, as a result of the May 2018 acquisition of AdsWizz Inc. by Pandora, we provide a comprehensive digital audio advertising technology platform, which connects audio publishers and advertisers. As of September 30, 2019, our Pandora business had approximately 63.1 million monthly active users.

Liberty Media

As of September 30, 2019, Liberty Media beneficially owned, directly and indirectly, approximately 71% of the outstanding shares of our common stock. As a result, we are a "controlled company" for the purposes of the NASDAQ corporate governance requirements.

Presentation

This Quarterly Report on Form 10-Q for thethree and nine months ended September 30, 2019, includes our unaudited results compared with thethree and nine months ended September 30, 2018. The discussion of our results of operations for the three and nine months ended September 30, 2019 includes the financial results of Pandora from February 1, 2019, the date of the Pandora Acquisition, while the results of operations for the three and nine months ended September 30, 2018 do not include the results of Pandora since that was prior to the Pandora Acquisition. We also include unaudited information on the revenues and costs of services of each of our segments compared with the three and nine months ended September 30, 2018. The absence of the Pandora results for January 2019 and from the three and nine months ended September 30, 2018 may render the comparison of the unaudited actual results for the three and nine months ended September 30, 2019 to the prior period less meaningful.

We have also included in this Quarterly Report on Form 10-Q for thethree and nine months ended September 30, 2019 *pro forma* unaudited results compared with the three and nine months ended September 30, 2018. We also include *pro forma* unaudited information on the revenues and costs of sales of each of our segments compared with the three and nine months ended September 30, 2018. These *pro forma* results assume that the Pandora Acquisition occurred on January 1, 2018 and eliminate the effect of certain purchase accounting adjustments associated with the Pandora Acquisition.

We have also included in this Quarterly Report on Form 10-Q certain financial performance measures for our company as well as for our Sirius XM and our Pandora businesses, when applicable, some of which are not calculated and presented in accordance with generally accepted accounting principles in the United States ("Non-GAAP"). These Non-GAAP items include free cash flow and adjusted EBITDA. We also present certain operating performance measures. These financial and operating performance measures are also presented on a *pro forma* basis and assume that the Pandora Acquisition occurred on January 1, 2018 and eliminate the effect of certain purchase accounting adjustments associated with the Pandora Acquisition. See "Key Financial and Operating Performance Metrics," for more information on these performance measures.

Results of Operations

Unaudited Actual Results

Set forth below are our results of operations for the three and nine months ended September 30, 2019 compared with the three and nine months ended September 30, 2018. The inclusion of Pandora's results in the three and nine months ended September 30, 2019 (since the date of the Pandora acquisition of February 1, 2019) may render direct comparisons with results for prior periods less meaningful. The results of operations are presented for each of our reporting segments for revenue and cost of services and on a consolidated basis for all other items.

| | For the T | hroo M | onths Ended | | For the Nine | Montl | he Endod | | | 2019 vs 20 | 18 Change | |
|--|-----------|--------|-------------|----|--------------|-------|----------|----|---------|------------|-----------|-----------|
| | | ptembe | | | Septer | | | | Three M | lonths | Nine | Months |
| | 2019 | | 2018 | | 2019 | | 2018 | Am | ount | % | Amount | % |
| Revenue | | | | | | | | | | | | |
| Sirius XM: | | | | | | | | | | | | |
| Subscriber revenue | \$ 1,42 | 24 \$ | \$ 1,340 | \$ | 4,196 | \$ | 3,903 | \$ | 84 | 6 % | \$ 293 | 8 % |
| Advertising revenue | 4 | 51 | 46 | | 149 | | 135 | | 5 | 11 % | 14 | 10 % |
| Equipment revenue | 4 | 15 | 41 | | 127 | | 113 | | 4 | 10 % | 14 | 12 9 |
| Other revenue | | 14 | 40 | | 121 | | 124 | | 4 | 10 % | (3) | $(2)^{6}$ |
| Total Sirius XM revenue | 1,50 | 54 | 1,467 | | 4,593 | | 4,275 | | 97 | 7 % | 318 | 7 9 |
| Pandora: | | | | | | | | | | | | |
| Subscriber revenue | 13 | 2 | _ | | 355 | | _ | | 132 | nm | 355 | nm |
| Advertising revenue | 31 | 5 | _ | | 784 | | _ | | 315 | nm | 784 | nm |
| Total Pandora revenue | 44 | 7 | | | 1,139 | | | | 447 | nm | 1,139 | nm |
| Total consolidated revenue | 2,0 | 1 | 1,467 | | 5,732 | | 4,275 | | 544 | 37 % | 1,457 | 34 % |
| Cost of services | | | | | | | | | | | | |
| Sirius XM: | | | | | | | | | | | | |
| Revenue share and royalties | 35 | 8 | 343 | | 1,065 | | 1,057 | | 15 | 4 % | 8 | 1 9 |
| Programming and content | 11 | 3 | 96 | | 328 | | 303 | | 17 | 18 % | 25 | 8 9 |
| Customer service and billing | Ģ | 9 | 95 | | 296 | | 284 | | 4 | 4 % | 12 | 4 9 |
| Transmission | 2 | 29 | 24 | | 79 | | 70 | | 5 | 21 % | 9 | 13 % |
| Cost of equipment | | 8 | 7 | | 20 | | 22 | | 1 | 14 % | (2) | (9) |
| Total Sirius XM cost of services | 60 |)7 | 565 | | 1,788 | | 1,736 | | 42 | 7 % | 52 | 3 9 |
| Pandora: | | | | | | | | | | | | |
| Revenue share and royalties | 23 | 4 | _ | | 619 | | _ | | 234 | nm | 619 | nm |
| Programming and content | | 3 | _ | | 10 | | _ | | 3 | nm | 10 | nm |
| Customer service and billing | 2 | 20 | _ | | 56 | | _ | | 20 | nm | 56 | nm |
| Transmission | 1 | .7 | _ | | 38 | | _ | | 17 | nm | 38 | nm |
| Total Pandora cost of services | 27 | 4 | | | 723 | | | | 274 | nm | 723 | nm |
| Total consolidated cost of services | 88 | 31 | 565 | | 2,511 | | 1,736 | | 316 | 56 % | 775 | 45 9 |
| Subscriber acquisition costs | 10 |)1 | 109 | | 313 | | 352 | | (8) | (7)% | (39) | (11) |
| Sales and marketing | 23 | | 117 | | 648 | | 344 | | 116 | 99 % | 304 | 88 9 |
| Engineering, design and development | | 78 | 31 | | 206 | | 89 | | 47 | 152 % | 117 | 131 9 |
| General and administrative | 12 | | 86 | | 379 | | 264 | | 38 | 44 % | 115 | 44 9 |
| Depreciation and amortization | 11 | 8 | 76 | | 344 | | 222 | | 42 | 55 % | 122 | 55 9 |
| Acquisition and other related costs | - | _ | _ | | 83 | | _ | | _ | nm | 83 | nm |
| Total operating expenses | 1,53 | .5 | 984 | | 4,484 | | 3,007 | | 551 | 56 % | 1,477 | 49 9 |
| | 47 | | | | | | | | | | | |
| Income from operations | 4, | O | 483 | | 1,248 | | 1,268 | | (7) | (1)% | (20) | (2) |
| Other (expense) income: | (10 | M) | (96) | | (201) | | (262) | | (10) | (21)0/ | (20) | (11) |
| Interest expense Loss on extinguishment of debt | ` | (4) | (86) | | (291) | | (263) | | (18) | (21)% | (28) | (11) |
| | | 66) | (42) | | (57) | | 82 | | (56) | nm | (57) | nm |
| Other (expense) income | | | (42) | _ | (2) | | 82 | | 42 | nm | (84) | nm |
| Total other (expense) income | | 60) | (128) | | (350) | | (181) | - | (32) | nm | (169) | nm |
| Income before income taxes | | .6 | 355 | | 898 | | 1,087 | | (39) | (11)% | (189) | (17) |
| Income tax expense | | 70) | (12) | _ | (227) | _ | (162) | | (58) | (483)% | (65) | (40) |
| Net income | \$ 24 | 6 5 | \$ 343 | \$ | 671 | \$ | 925 | \$ | (97) | (28)% | \$ (254) | (27) |

Sirius XM Revenue

Refer to page 44 for our discussion on Sirius XM revenue.

Pandora Revenue

Pandora revenue includes actual results for the period from the acquisition date to September 30, 2019. Refer to page 44 for our discussion on Pandora revenue.

Sirius XM Cost of Services

Refer to page 45 for our discussion on Sirius XM cost of services.

Pandora Cost of Services

Pandora cost of services includes actual results for the period from the acquisition date to September 30, 2019. Refer to page 46 for our discussion on Pandora cost of services.

Operating Costs

Subscriber Acquisition Costs are costs associated with our satellite radio and connected vehicle services and include hardware subsidies paid to radio manufacturers, distributors and automakers; subsidies paid for chipsets and certain other components used in manufacturing radios; device royalties for certain radios and chipsets; product warranty obligations; and freight. The majority of subscriber acquisition costs are incurred and expensed in advance of acquiring a subscriber. Subscriber acquisition costs do not include advertising costs, marketing, loyalty payments to distributors and dealers of satellite radios or revenue share payments to automakers and retailers of satellite radios.

For the three months ended September 30, 2019 and 2018, subscriber acquisition costs were \$101 and \$109, respectively, a decrease of 7%, or \$8, and decreased as a percentage of total revenue. For the nine months ended September 30, 2019 and 2018, subscriber acquisition costs were \$313 and \$352, respectively, a decrease of 11% or \$39, and decreased as a percentage of total revenue. The decreases were driven by reductions to OEM hardware subsidy rates, lower subsidized costs related to the transition of chipsets, and a decrease in the volume of satellite radio installations.

We expect subscriber acquisition costs to fluctuate with OEM installations; however, the subsidized chipsets cost is expected to decline as we transition to a new generation of chipsets. We intend to continue to offer subsidies and other incentives to induce OEMs to include our technology in their vehicles.

Sales and Marketing includes costs for marketing, advertising, media and production, including promotional events and sponsorships; cooperative and artist marketing; and personnel related costs including salaries, commissions, and sales support. Marketing costs include expenses related to direct mail, outbound telemarketing, email communications, and digital performance media.

For the three months ended September 30, 2019 and 2018, sales and marketing expenses were \$233 and \$117, respectively, an increase of 99%, or \$116, and increased as a percentage of total revenue. For the nine months ended September 30, 2019 and 2018, sales and marketing expenses were \$648 and \$344, respectively, an increase of 88%, or \$304, and increased as a percentage of total revenue. The increases were primarily due to the inclusion of Pandora, and additional subscriber communications, retention programs and acquisition campaigns.

We anticipate that sales and marketing expenses will increase as we expand programs to retain our existing subscribers, win back former subscribers, and attract new subscribers and listeners.

Engineering, Design and Development consists primarily of compensation and related costs to develop chipsets and new products and services, including streaming and connected vehicle services, research and development for broadcast information systems and the design and development costs to incorporate Sirius XM radios into new vehicles manufactured by automakers.

For the three months ended September 30, 2019 and 2018, engineering, design and development expenses were \$78 and \$31, respectively, an increase of 152%, or \$47, and increased as a percentage of total revenue. For the nine months ended September 30, 2019 and 2018, engineering, design and development expenses were \$206 and \$89, respectively, an increase of 131%, or \$117, and increased as a percentage of total revenue. The increases were driven by the inclusion of Pandora.

We expect engineering, design and development expenses to increase in future periods as we continue to develop our infrastructure, products and services.

General and Administrative primarily consists of compensation and related costs for personnel and facilities, and include costs related to our finance, legal, human resources and information technologies departments.

For the three months ended September 30, 2019 and 2018, general and administrative expenses were \$124 and \$86, respectively, an increase of 44%, or \$38, and increased as a percentage of total revenue. For the nine months ended September 30, 2019 and 2018, general and administrative expenses were \$379 and \$264, respectively, an increase of 44%, or \$115, and increased as a percentage of total revenue. The increase for the three month period was primarily driven by the inclusion of Pandora. The increase for the nine month period was primarily driven by the inclusion of Pandora and by a one-time \$25 legal settlement reserve associated with certain Do-Not-Call litigation.

We expect our general and administrative expenses to increase to support the growth of our business.

Depreciation and Amortization represents the recognition in earnings of the cost of assets used in operations, including our satellite constellations, property, equipment and intangible assets, over their estimated service lives.

For the three months ended September 30, 2019 and 2018, depreciation and amortization expense was \$118 and \$76, respectively, an increase of 55%, or \$42, and increased as a percentage of total revenue. For the nine months ended September 30, 2019 and 2018, depreciation and amortization expense was \$344 and \$222, respectively, an increase of 55%, or \$122, and increased as a percentage of total revenue. The increases were driven by the amortization of definite life intangibles resulting from the Pandora Acquisition and higher depreciation costs related to additional assets placed in-service.

Acquisition and Other Related Costs represents expenses associated with the Pandora Acquisition and related reorganization costs.

For the three and nine months ended September 30, 2019, acquisition and other related costs were \$0 and \$83, respectively. There were no acquisition and other related costs in 2018.

Other (Expense) Income

Interest Expense includes interest on outstanding debt.

For the three months ended September 30, 2019 and 2018, interest expense was \$104 and \$86, respectively. For the nine months ended September 30, 2019 and 2018, interest expense was \$291 and \$263, respectively. The increases were primarily driven by higher average debt due to the issuances of the 5.500% Senior Notes due 2029 and the 4.625% Senior Notes due 2024 as well as the inclusion of Pandora debt, partially offset by the redemption of the 6.00% Senior Notes due 2024 and lower interest rates.

Loss on Extinguishment of Debt includes losses incurred as a result of the redemption of certain debt.

We recorded a \$56 and \$57 loss on extinguishment of debt during thethree and nine months ended September 30, 2019, respectively. The loss for the nine month period was due to the redemption of \$1,500 in principal amount of Sirius XM's 6.00% Senior Notes due 2024 and the repurchase of \$151 principal amount of Pandora's 1.75% Convertible Senior Notes due 2020. There was no loss on extinguishment of debt during the three and nine months ended September 30, 2018.

Other (Expense) Income primarily includes realized and unrealized gains and losses, interest and dividend income, our share of the income or loss from our equity investments, and transaction costs related to non-operating investments.

For the three months ended September 30, 2019 and 2018, other (expense) income was \$0 and \$(42), respectively. For the nine months ended September 30, 2019 and 2018, other (expense) income was \$(2) and \$82, respectively. For the three and nine months ended September 30, 2019, we recorded our share of Sirius XM Canada's net loss and losses on other investments, which were partially offset by interest earned on our loan to Sirius XM Canada and trading gains associated with the investments held for our Deferred Compensation Plan. For the three and nine months ended September 30, 2018, other income was driven by unrealized (losses)/gains of \$(44) and \$74 from a fair value adjustment of our investment in Pandora, respectively, and interest earned on our loan to Sirius XM Canada.

Income Taxes

Income Tax Expense includes the change in our deferred tax assets, current federal and state tax expenses, and foreign withholding taxes.

For the three months ended September 30, 2019 and 2018, income tax expense was \$70 and \$12, respectively, and \$227 and \$162 for the nine months ended September 30, 2019 and 2018, respectively.

Our effective tax rate for thethree months ended September 30, 2019 and 2018 was 22.2% and 3.3%, respectively. Our effective tax rate for thenine months ended September 30, 2019 and 2018 was 25.3% and 14.9%, respectively. The effective tax rate for the three months ended September 30, 2019 was primarily impacted by the recognition of excess tax benefits related to share based compensation. The effective tax rate for the nine months ended September 30, 2019 was primarily impacted by the increase to the valuation allowance related to the federal research and development credits that are no longer expected to be realizable. The effective tax rate for the three and nine months ended September 30, 2018 was primarily impacted by the recognition of excess tax benefits related to share based compensation and a benefit related to state research and development credits. We estimate our effective tax rate for the year ending December 31, 2019 will be approximately 24%.

Additionally, in connection with the Pandora Acquisition, we acquired gross NOL carryforwards of approximately\$1,284 for federal income tax purposes. These NOL carryforwards are available to offset future taxable income. The acquired NOLs are limited annually by Section 382 of the Internal Revenue Code but we expect to fully utilize those NOLs within the carryforward period.

Unaudited Pro Forma Results

Set forth below are our pro forma results of operations for thethree and nine months ended September 30, 2019 compared with the three and nine months ended September 30, 2018. These pro forma results are based on estimates and assumptions, which we believe are reasonable. They are not the results that would have been realized had the Pandora Acquisition actually occurred on January 1, 2018 and are not indicative of our consolidated results of operations in future periods. The pro forma results primarily include adjustments related to amortization of acquired intangible assets, depreciation of property and equipment, acquisition costs, fair value gain or loss on the Pandora investment and associated tax impacts. Please refer to the Footnotes to Results of Operations (pages 49 through 54) following our discussion of results of operations.

| | TD 41 700 | | 10 / | | | | | 2019 vs 2018 Change | | | | | | | |
|-------------------------------------|------------------|------------|--------------|--------|--------------|-------|------------------|---------------------|---------|-----------------|-------------|--------|--------|--|--|
| | For the Three Mo | onths Ende | ed September | For th | e Nine Month | s End | ed September 30, | | Three M | onths | | Nine M | onths | | |
| | 2019 | | 2018 | | 2019 | | 2018 | A | mount | % | | Amount | % | | |
| Revenue | (Pro Forma) | (I | Pro Forma) | (Pı | o Forma) | | (Pro Forma) | | | | | | | | |
| Sirius XM: | | | | | | | | | | | | | | | |
| Subscriber revenue | \$ 1,424 | \$ | 1,340 | \$ | 4,196 | \$ | 3,903 | \$ | 84 | 6 9 | 6 \$ | 293 | 8 % | | |
| Advertising revenue | 51 | | 46 | | 149 | | 135 | | 5 | 11 9 | 6 | 14 | 10 % | | |
| Equipment revenue | 45 | | 41 | | 127 | | 113 | | 4 | 10 9 | | 14 | 12 % | | |
| Other revenue | 46 | | 42 | | 127 | | 130 | | 4 | 10 9 | 6 | (3) | (2)% | | |
| Total Sirius XM revenue | 1,566 | | 1,469 | | 4,599 | | 4,281 | | 97 | 7 9 | 6 | 318 | 7 % | | |
| Pandora: | | | | | | | | | | | | | | | |
| Subscriber revenue | 132 | | 126 | | 401 | | 345 | | 6 | 5 9 | 6 | 56 | 16 % | | |
| Advertising revenue | 315 | | 292 | | 852 | | 778 | | 23 | 8 9 | 6 <u> </u> | 74 | 10 % | | |
| Total Pandora revenue | 447 | | 418 | | 1,253 | | 1,123 | | 29 | 7 9 | 6 | 130 | 12 % | | |
| Total consolidated revenue | 2,013 | | 1,887 | | 5,852 | | 5,404 | | 126 | 7 9 | 6 | 448 | 8 % | | |
| Cost of services | | | | | | | | | | | | | | | |
| Sirius XM: | | | | | | | | | | | | | | | |
| Revenue share and royalties | 358 | | 343 | | 1,065 | | 1,057 | | 15 | 4 9 | 6 | 8 | 1 % | | |
| Programming and content | 113 | | 96 | | 328 | | 303 | | 17 | 18 9 | 6 | 25 | 8 % | | |
| Customer service and billing | 99 | | 95 | | 296 | | 284 | | 4 | 4 9 | 6 | 12 | 4 % | | |
| Transmission | 29 | | 24 | | 79 | | 70 | | 5 | 21 9 | 6 | 9 | 13 % | | |
| Cost of equipment | 8 | | 7 | | 20 | | 22 | | 1 | 14 9 | 6 | (2) | (9)% | | |
| Total Sirius XM cost of services | 607 | | 565 | | 1,788 | | 1,736 | | 42 | 7 9 | 6 | 52 | 3 % | | |
| Pandora: | | | | | | | | | | | | | | | |
| Revenue share and royalties | 238 | | 235 | | 701 | | 694 | | 3 | 1 9 | 6 | 7 | 1 % | | |
| Programming and content | 3 | | 3 | | 10 | | 7 | | _ | 9 | 6 | 3 | 43 % | | |
| Customer service and billing | 20 | | 25 | | 64 | | 69 | | (5) | $(20)^{\circ}$ | 6 | (5) | (7)% | | |
| Transmission | 17 | | 14 | | 43 | | 38 | | 3 | 21 9 | 6 | 5 | 13 % | | |
| Total Pandora cost of services | 278 | | 277 | | 818 | | 808 | | 1 | 9 | 6 | 10 | 1 % | | |
| Total consolidated cost of services | 885 | | 842 | | 2,606 | | 2,544 | | 43 | 5 9 | 6 | 62 | 2 % | | |
| Subscriber acquisition costs | 101 | | 109 | | 313 | | 352 | | (8) | $(7)^{\circ}$ | 6 | (39) | (11)% | | |
| Sales and marketing | 233 | | 214 | | 684 | | 638 | | 19 | 9 9 | 6 | 46 | 7 % | | |
| Engineering, design and development | 78 | | 69 | | 220 | | 195 | | 9 | 13 9 | 6 | 25 | 13 % | | |
| General and administrative | 124 | | 126 | | 395 | | 388 | | (2) | (2) | 6 | 7 | 2 % | | |
| Depreciation and amortization | 118 | | 117 | | 359 | | 345 | | 1 | 1 9 | 6 | 14 | 4 % | | |
| Total operating expenses | 1,539 | | 1,477 | , | 4,577 | | 4,462 | | 62 | 4 9 | 6 | 115 | 3 % | | |
| Income from operations | 474 | _ | 410 | | 1,275 | | 942 | | 64 | 16 % | 6 | 333 | 35 % | | |
| Other (expense) income: | | | | | | | | | | | | | | | |
| Interest expense | (104) |) | (93) | | (293) | | (284) | | (11) | (12) | 6 | (9) | (3)% | | |
| Loss on extinguishment of debt | (56) |) | _ | | (57) | | (17) | | (56) | <u> </u> | 6 | (40) | (235)% | | |
| Other (expense) income | | | 3 | | (1) | | 14 | | (3) | $(100)^{\circ}$ | ⁄o | (15) | (107)% | | |
| Total other (expense) income | (160) |) | (90) | | (351) | | (287) | | (70) | (78) | 6 | (64) | (22)% | | |
| Income before income taxes | 314 | | 320 | | 924 | | 655 | | (6) | (2) | 6 | 269 | 41 % | | |
| Income tax expense | (69) |) | (3) | | (234) | | (47) | | (66) | nm | | (187) | (398)% | | |
| Net income | \$ 245 | \$ | 317 | | 690 | | 608 | \$ | (72) | (23) | % \$ | 82 | 13 % | | |
| Adjusted EBITDA | \$ 657 | \$ | 585 | \$ | 1,841 | \$ | 1,539 | \$ | 72 | | 6 \$ | 302 | 20 % | | |

Sirius XM Revenue

Sirius XM Subscriber Revenue includes self-pay and paid promotional subscriptions, U.S. Music Royalty Fees and other ancillary fees.

For the three months ended September 30, 2019 and 2018, subscriber revenue was \$1,424 and \$1,340, respectively, an increase of 6%, or \$84. For the nine months ended September 30, 2019 and 2018, subscriber revenue was \$4,196 and \$3,903, respectively, an increase of 8%, or \$293. The increases were primarily driven by higher U.S. Music Royalty Fees due to a higher music royalty rate and self-pay subscription revenue as a result of a 3% increase in the daily weighted average number of subscribers.

We expect subscriber revenues to increase based on the growth of our subscriber base, increases in the average price charged and the sale of additional services to subscribers.

Sirius XM Advertising Revenue includes the sale of advertising on Sirius XM's non-music channels.

For the three months ended September 30, 2019 and 2018, advertising revenue was \$51 and \$46, respectively, an increase of 11%, or \$5. For the nine months ended September 30, 2019 and 2018, advertising revenue was \$149 and \$135, respectively, an increase of 10%, or \$14. The increases were primarily due to a greater number of advertising spots sold and transmitted as well as increases in rates charged per spot.

We expect our Sirius XM advertising revenue to continue to grow as more advertisers are attracted to our national platform and growing subscriber base.

Sirius XM Equipment Revenue includes revenue and royalties from the sale of satellite radios, components and accessories.

For the three months ended September 30, 2019 and 2018, equipment revenue was \$45 and \$41, respectively, an increase of 10%, or \$4. For the nine months ended September 30, 2019 and 2018, equipment revenue was \$127 and \$113, respectively, an increase of 12%, or \$14. The increases were driven by an increase in royalty revenue due to our transition to a new generation of chipsets.

We expect equipment revenue to increase as royalty revenue associated with certain new chipsets increases.

Sirius XM Other Revenue includes service and advisory revenue from our Sirius XM Canada, our connected vehicle services, and ancillary revenues.

For the three months ended September 30, 2019 and 2018, other revenue was \$46 and \$42, respectively, an increase of 10%, or \$4. For the nine months ended September 30, 2019 and 2018, other revenue was \$127 and \$130, respectively, a decrease of 2%, or \$3. The increase for the three month period was primarily driven by higher revenue generated by our connected vehicle services. The decrease for the nine month period was primarily driven by a decrease in data usage revenue generated from our connected vehicle services.

We expect other revenue to increase due to additional revenues generated from our connected vehicle services.

Pandora Revenue

Pandora Subscriber Revenue includes fees charged for Pandora Plus and Pandora Premium subscriptions.

For the three months ended September 30, 2019 and 2018, Pandora subscriber revenue was \$132 and \$126, respectively, an increase of 5%, or \$6. For the nine months ended September 30, 2019 and 2018, Pandora subscriber revenue was \$401 and \$345, respectively, an increase of 16%, or \$56. The increases were primarily due to a greater weighted average number of subscribers.

We expect Pandora subscriber revenues to remain relatively flat as growth of our Pandora subscriber base is offset by the expiration of the one-year promotional trial with T-Mobile.

Pandora Advertising Revenue is generated primarily from audio, display and video advertising.

For the three months ended September 30, 2019 and 2018, Pandora advertising revenue was \$315 and \$292, respectively, an increase of 8%, or \$23. For the nine months ended September 30, 2019 and 2018, Pandora advertising revenue was \$852 and \$778, respectively, an increase of 10%, or \$74. The increases were primarily due to increased sell-through percentage, growth in our off-platform advertising revenue, and revenue growth in the AdsWizz business.

We expect our advertising revenue to continue to increase due to our off-platform advertising opportunities.

Total Consolidated Revenue

Total Consolidated Revenue for the three months ended September 30, 2019 and 2018, was \$2,013 and \$1,887, respectively, an increase of 7%, or \$126. Total Consolidated Revenue for the nine months ended September 30, 2019 and 2018, was \$5,852 and \$5,404, respectively, an increase of 8%, or \$448.

Sirius XM Cost of Services

Sirius XM Cost of Services includes revenue share and royalties, programming and content, customer service and billing and transmission expenses.

Sirius XM Revenue Share and Royalties include royalties for transmitting content, including streaming royalties, as well as automaker, content provider and advertising revenue share.

For the three months ended September 30, 2019 and 2018, revenue share and royalties were \$358 and \$343, respectively, an increase of 4%, or \$15, but decreased as a percentage of total Sirius XM revenue. For the nine months ended September 30, 2019 and 2018, revenue share and royalties were \$1,065 and \$1,057, respectively, an increase of 1%, or \$8, but decreased as a percentage of total Sirius XM revenue. The increases were driven by overall greater revenues subject to royalties and revenue share. The increase for the nine month period was partially offset by a \$69 charge during the second quarter of 2018 related to the legal settlement that resolved all outstanding claims, including ongoing audits, under Sirius XM's statutory license for sound recordings for the period January 1, 2007 through December 31, 2017.

We expect our Sirius XM revenue share and royalty costs to increase as our revenues grow.

Sirius XM Programming and Content includes costs to acquire, create, promote and produce content. We have entered into various agreements with third parties for music and non-music programming that require us to pay license fees and other amounts.

For the three months ended September 30, 2019 and 2018, programming and content expenses were \$113 and \$96, respectively, an increase of 18%, or \$17, and increased as a percentage of total Sirius XM revenue. For the nine months ended September 30, 2019 and 2018, programming and content expenses were \$328 and \$303, respectively, an increase of 8%, or \$25, and increased as a percentage of total Sirius XM revenue. The increases were primarily driven by higher content licensing costs as well as greater personnel-related costs.

We expect our Sirius XM programming and content expenses to increase as we offer additional programming and renew or replace expiring agreements.

Sirius XM Customer Service and Billing includes costs associated with the operation and management of internal and third party customer service centers, and our subscriber management systems as well as billing and collection costs, bad debt expense, and transaction fees.

For the three months ended September 30, 2019 and 2018, customer service and billing expenses were \$99 and \$95, respectively, an increase of 4%, or \$4, but decreased as a percentage of total Sirius XM revenue. For the nine months ended September 30, 2019 and 2018, customer service and billing expenses were \$296 and \$284, respectively, an increase of 4%, or \$12, but decreased as a percentage of total Sirius XM revenue. The increase for the three month period was driven by increased transaction fees from a larger subscriber base and higher call center costs due to volume. The increase for the nine month period was driven by increased transaction fees from a larger subscriber base and higher bad debt expense, partially offset by lower call center costs due to improved agent rates.

We expect our Sirius XM customer service and billing expenses to increase as our subscriber base grows.

Sirius XM Transmission consists of costs associated with the operation and maintenance of our terrestrial repeater networks; satellites; satellite telemetry, tracking and control systems; satellite uplink facilities; studios; and delivery of our Internet streaming and connected vehicle services.

For the three months ended September 30, 2019 and 2018, transmission expenses were \$29 and \$24, respectively, an increase of 21%, or \$5, and increased as a percentage of total Sirius XM revenue. For the nine months ended September 30, 2019 and 2018, transmission expenses were \$79 and \$70, respectively, an increase of 13%, or \$9, and increased as a percentage of total Sirius XM revenue. The increases were primarily driven by higher cloud hosting and wireless costs associated with our streaming services and higher repeater network costs.

We expect our Sirius XM transmission expenses to increase as costs associated with our investments in Internet streaming grow.

Sirius XM Cost of Equipment includes costs from the sale of satellite radios, components and accessories and provisions for inventory allowance attributable to products purchased for resale in our direct to consumer distribution channels.

For the three months ended September 30, 2019 and 2018, cost of equipment was \$8 and \$7, respectively, an increase of 14%, or \$1, and increased as a percentage of equipment revenue. For the nine months ended September 30, 2019 and 2018, cost of equipment was \$20 and \$22, respectively, a decrease of 9%, or \$2, and decreased as a percentage of equipment revenue. The increase for the three month period was primarily due to an increase in our inventory reserve and shipping costs, partially offset by lower direct sales to connected vehicle consumers. The decrease for the nine month period was primarily due to lower direct sales to satellite radio and connected vehicle consumers, partially offset by an increase in our inventory reserve.

We expect our Sirius XM cost of equipment to increase with the sales of our streaming devices, satellite radios and connected vehicle devices.

Pandora Cost of Services

Pandora Cost of Services includes revenue share and royalties, programming and content, customer service and billing, and transmission expenses.

Pandora Revenue Share and Royalties includes licensing fees paid for streaming music or other content to our subscribers and listeners as well as revenue share paid to third party ad servers. We make payments to third party ad servers for the period the advertising impressions are delivered or click-through actions occur, and accordingly, we record this as a cost of service in the related period.

For the three months ended September 30, 2019 and 2018, revenue share and royalties were \$238 and \$235, respectively, an increase of 1%, or \$3, but decreased as a percentage of total Pandora revenue. For the nine months ended September 30, 2019 and 2018, revenue share and royalties were \$701 and \$694, respectively, an increase of 1%, or \$7, but decreased as a percentage of total Pandora revenue. The increases were primarily attributable to higher revenue share driven by overall greater revenues, partially offset by lower costs resulting from renegotiated agreements with major and independent labels, distributors, PROs and publishers.

We expect our Pandora revenue share and royalty costs to increase as off-platform revenue increases.

Pandora Programming and Content includes costs to produce live listener events and promote content.

For the three months ended September 30, 2019 and 2018, programming and content expenses were \$3, and decreased as a percentage of total Pandora revenue. For the nine months ended September 30, 2019 and 2018, programming and content expenses were \$10 and \$7, respectively, an increase of 43%, or \$3, and increased as a percentage of total Pandora revenue. The increase for the nine month period was primarily attributable to higher personnel-related and content costs.

We expect our Pandora programming and content costs to increase as we offer additional programming and continue to produce live listener events and promotions.

Pandora Customer Service and Billing includes transaction fees on subscription purchases through mobile app stores, and bad debt expense.

For the three months ended September 30, 2019 and 2018, customer service and billing expenses were \$20 and \$25, respectively, a decrease of 20%, or \$5, and decreased as a percentage of total Pandora revenue. For the nine months ended September 30, 2019 and 2018, customer service and billing expenses were \$64 and \$69, respectively, a decrease of 7%, or \$5, and decreased as a percentage of total Pandora revenue. The decreases were primarily driven by bad debt recoveries.

We expect our Pandora customer service and billing costs to increase as our subscriber base grows.

Pandora Transmission includes costs associated with content streaming, maintaining our streaming radio and on-demand subscription services and creating and serving advertisements through third-party ad servers.

For the three months ended September 30, 2019 and 2018, transmission expenses were \$17 and \$14, respectively, an increase of 21%, or \$3, and increased as a percentage of total Pandora revenue. For the nine months ended September 30, 2019 and 2018, transmission expenses were \$43 and \$38, respectively, an increase of 13%, or \$5, and increased as a percentage of total Pandora revenue. The increases were primarily driven by web hosting costs and personnel related costs.

We expect our Pandora transmission costs to increase with growth in our subscriber base and off-platform advertising.

Operating Costs

Subscriber Acquisition Costs are costs only associated with our satellite radio and connected vehicle services and include hardware subsidies paid to radio manufacturers, distributors and automakers; subsidies paid for chipsets and certain other components used in manufacturing radios; device royalties for certain radios and chipsets; product warranty obligations; and freight. The majority of subscriber acquisition costs are incurred and expensed in advance of acquiring a subscriber. Subscriber acquisition costs do not include advertising costs, marketing, loyalty payments to distributors and dealers of satellite radios or revenue share payments to automakers and retailers of satellite radios.

For the three months ended September 30, 2019 and 2018, subscriber acquisition costs were \$101 and \$109, respectively, a decrease of 7%, or \$8, and decreased as a percentage of total revenue. For the nine months ended September 30, 2019 and 2018, subscriber acquisition costs were \$313 and \$352, respectively, a decrease of 11%, or \$39, and decreased as a percentage of total revenue. The decreases were driven by reductions to OEM hardware subsidy rates, lower subsidized costs related to the transition of chipsets, and a decrease in the volume of satellite radio installations.

We expect subscriber acquisition costs to fluctuate with OEM installations; however, the subsidized chipsets cost is expected to decline as we transition to a new generation of chipsets. We intend to continue to offer subsidies and other incentives to induce OEMs to include our technology in their vehicles.

Sales and Marketing includes costs for marketing, advertising, media and production, including promotional events and sponsorships; cooperative and artist marketing; and personnel related costs including salaries, commissions, and sales support. Marketing costs include expenses related to direct mail, outbound telemarketing, email communications, and digital performance media.

For the three months ended September 30, 2019 and 2018, sales and marketing expenses were \$233 and \$214, respectively, an increase of 9%, or \$19, and increased as a percentage of total revenue. For the nine months ended September 30, 2019 and 2018, sales and marketing expenses were \$684 and \$638, respectively, an increase of 7%, or \$46, but decreased as a percentage of total revenue. The increases were primarily due to additional subscriber communications, retention programs and acquisition campaigns, as well as higher personnel-related costs.

We anticipate that sales and marketing expenses will increase as we expand programs to retain our existing subscribers, win back former subscribers, and attract new subscribers and listeners.

Engineering, Design and Development consists primarily of compensation and related costs to develop chipsets and new products and services, including streaming and connected vehicle services, research and development for broadcast information systems and costs associated with the incorporation of our radios into new vehicles manufactured by automakers.

For the three months ended September 30, 2019 and 2018, engineering, design and development expenses were \$78 and \$69, respectively, an increase of 13%, or \$9, and increased as a percentage of total revenue. For the nine months ended September 30, 2019 and 2018, engineering, design and development expenses were \$220 and \$195, respectively, an

increase of 13%, or \$25, and increased as a percentage of total revenue. The increases were driven by higher personnel-related costs.

We expect engineering, design and development expenses to increase in future periods as we continue to develop our infrastructure, products and services.

General and Administrative primarily consists of compensation and related costs for personnel and facilities, and include costs related to our finance, legal, human resources and information technologies departments.

For the three months ended September 30, 2019 and 2018, general and administrative expenses were \$124 and \$126, respectively, a decrease of 2%, or \$2, and decreased as a percentage of total revenue. For the nine months ended September 30, 2019 and 2018, general and administrative expenses were \$395 and \$388, respectively, an increase of 2%, or \$7, but decreased as a percentage of total revenue. The decrease for the three months was driven by lower legal and personnel costs. The increase for the nine months was primarily driven by a one-time \$25 legal settlement reserve associated with Do-Not-Call litigation and higher rent, partially offset by lower personnel-related costs and a one-time sales and use tax recorded in the second quarter of 2018.

We expect our general and administrative expenses to increase to support the growth of our business.

Depreciation and Amortization represents the recognition in earnings of the cost of assets used in operations, including our satellite constellations, property, equipment and intangible assets, over their estimated service lives.

For the three months ended September 30, 2019 and 2018, depreciation and amortization expense was \$118 and \$117, respectively, an increase of 1%, or \$1, but decreased as a percentage of total revenue. For the nine months ended September 30, 2019 and 2018, depreciation and amortization expense was \$359 and \$345, respectively, an increase of 4%, or \$14, but decreased as a percentage of total revenue. The increases were driven by the additional amortization associated with the acquired intangible assets recorded as part of the Pandora Acquisition, and higher depreciation costs related to additional assets placed in-service.

Other (Expense) Income

Interest Expense includes interest on outstanding debt.

For the three months ended September 30, 2019 and 2018, interest expense was \$104 and \$93, respectively, an increase of 12%, or \$11. For the nine months ended September 30, 2019 and 2018, interest expense was \$293 and \$284, respectively, an increase of 3%, or \$9. The increases were primarily driven by higher average debt due to the issuances of the 5.500% Senior Notes due 2029 and the 4.625% Senior Notes due 2024, partially offset by the redemption of the 6.00% Senior Notes due 2024, the repurchase of the Pandora 1.75% Convertible Senior Notes due 2020, and lower interest rates.

Loss on Extinguishment of Debt, includes losses incurred as a result of the redemption of certain debt.

For the three months ended September 30, 2019, we recorded a \$56 loss on extinguishment of debt primarily due to the redemption of Sirius XM's 6.00% Senior Notes due 2024. During the nine months ended September 30, 2018, Pandora recorded a \$17 loss on extinguishment of debt primarily due to the exchange of their 1.75% Convertible Senior Notes due 2020 for new 1.75% Convertible Senior Notes due 2023.

Other (Expense) Income primarily includes realized and unrealized gains and losses, interest and dividend income, our share of the income or loss from our equity investments, and transaction costs related to non-operating investments.

For the three months ended September 30, 2019 and 2018, other (expense) income was \$0 and \$3, respectively. For the nine months ended September 30, 2019 and 2018, other (expense) income was \$(1) and \$14, respectively. For the three and nine months ended September 30, 2019, we recorded our share of Sirius XM Canada's net loss and losses on other investments, partially offset by interest earned on our loan to Sirius XM Canada and trading gains associated with the investments held for our Deferred Compensation Plan. For the three and nine months ended September 30, 2018, other income was driven by interest earned on our loan to Sirius XM Canada and short-term investments.

Income Taxes

Income Tax Expense includes the change in our deferred tax assets, current federal and state tax expenses, and foreign withholding taxes.

For the three months ended September 30, 2019 and 2018, income tax expense was \$69 and \$3, respectively, and \$234 and \$47 for the nine months ended September 30, 2019 and 2018, respectively.

Our effective tax rate for thethree months ended September 30, 2019 and 2018 was 22.0% and 0.9%, respectively. Our effective tax rate for thenine months ended September 30, 2019 and 2018 was 25.3% and 7.2%, respectively. The effective tax rate for the three months ended September 30, 2019 was primarily impacted by the recognition of excess tax benefits related to share based compensation. The effective tax rate for the nine months ended September 30, 2019 was primarily impacted by the increase to the valuation allowance related to the federal research and development credits that are no longer expected to be realizable. The effective tax rate for the three and nine months ended September 30, 2018 was primarily impacted by the recognition of excess tax benefits related to share based compensation and a benefit related to state research and development credits. We estimate our effective tax rate for the year ending December 31, 2019 will be approximately 24%.

In connection with the Pandora Acquisition, we acquired gross NOL carryforwards of approximately \$1,284 for federal income tax purposes. These NOL carryforwards are available to offset future taxable income. The acquired NOLs are limited annually by Section 382 of the Internal Revenue Code but we expect to fully utilize those NOLs within the carryforward period.

Footnotes to Pro forma Results of Operations

The following tables reconcile our results of operations as reported to our pro forma results of operations for the three and nine months ended September 30, 2019 and 2018 which includes the Pandora pre-acquisition financial information for the applicable periods and the effects of purchase price accounting. These pro forma results are based on estimates and assumptions, which we believe are reasonable. They are not the results that would have been realized had the Pandora Acquisition actually occurred on January 1, 2018 and are not indicative of our consolidated results of operations in future periods. The pro forma results primarily include adjustments related to amortization of acquired intangible assets, depreciation of property and equipment, acquisition costs, fair value gain or loss on the Pandora investment and associated tax impacts.

| | • | Predecessor Financial | Purchase Price | | |
|-------------------------------------|-------------|-----------------------|------------------------|-----|-----------|
| | As Reported | Information | Accounting Adjustments | Ref | Pro Forma |
| Revenue | | | | | |
| Sirius XM: | | | | | |
| Subscriber revenue | \$ 1,424 | \$ — | \$ — | | \$ 1,424 |
| Advertising revenue | 51 | _ | _ | | 51 |
| Equipment revenue | 45 | _ | _ | | 45 |
| Other revenue | 44 | | 2 | (a) | 46 |
| Total Sirius XM revenue | 1,564 | _ | 2 | | 1,566 |
| Pandora: | | | | | |
| Subscriber revenue | 132 | _ | _ | | 132 |
| Advertising revenue | 315 | _ | _ | | 315 |
| Total Pandora revenue | 447 | | _ | _' | 447 |
| Total consolidated revenue | 2,011 | | 2 | | 2,013 |
| Cost of services | | | | | |
| Sirius XM: | | | | | |
| Revenue share and royalties | 358 | _ | _ | | 358 |
| Programming and content | 113 | _ | _ | | 113 |
| Customer service and billing | 99 | _ | _ | | 99 |
| Transmission | 29 | _ | _ | | 29 |
| Cost of equipment | 8 | _ | _ | | 8 |
| Total Sirius XM cost of services | 607 | | _ | _ | 607 |
| Pandora: | | | | | |
| Revenue share and royalties | 234 | _ | 4 | (b) | 238 |
| Programming and content | 3 | _ | _ | | 3 |
| Customer service and billing | 20 | _ | _ | | 20 |
| Transmission | 17 | _ | _ | | 17 |
| Total Pandora cost of services | 274 | | 4 | _ | 278 |
| Total consolidated cost of services | 881 | | 4 | _ | 885 |
| Subscriber acquisition costs | 101 | _ | _ | | 101 |
| Sales and marketing | 233 | _ | _ | | 233 |
| Engineering, design and development | 78 | _ | _ | | 78 |
| General and administrative | 124 | _ | _ | | 124 |
| Depreciation and amortization | 118 | _ | _ | | 118 |
| Acquisition and other related costs | _ | _ | _ | | _ |
| Total operating expenses | 1,535 | | 4 | _ | 1,539 |
| Income (loss) from operations | 476 | | (2) | | 474 |
| Other (expense) income: | 470 | | (2) | | 7/4 |
| Interest expense | (104) | _ | _ | | (104) |
| Loss on extinguishment of debt | (56) | _ | _ | | (56) |
| Other (expense) income | _ | _ | _ | | |
| Total other (expense) income | (160) | | | | (160) |
| Income (loss) before income taxes | 316 | | (2) | _ | 314 |
| Income tax expense | (70) | _ | 1 | (c) | (69) |
| meetine tan enperior | (70) | - | 1 | (0) | (0) |

This adjustment eliminates the impact of additional revenue associated with certain programming agreements recorded as part of the XM (a) Merger.

⁽b) This adjustment includes the impact of additional expense associated with minimum guarantee royalty contracts recorded as part of the Pandora

Acquisition.

This adjustment to income taxes was calculated by applying Sirius XM's statutory tax rate at September 30, 2019 to the pro forma adjustments of (c) \$(2).

| | | Unaudited for the Three Months Ended September 30, 2018 | | | | | | | | | |
|--|--------------------|---|---|-----|-----------|--|--|--|--|--|--|
| | As Reported | Predecessor Financial Information (d) | Purchase Price Accounting and Pro Forma Adjustments | Ref | Pro Forma | | | | | | |
| Revenue | | | | | | | | | | | |
| Sirius XM: | | | | | | | | | | | |
| Subscriber revenue | \$ 1,340 | \$ — | \$ | | \$ 1,340 | | | | | | |
| Advertising revenue | 46 | _ | _ | | 46 | | | | | | |
| Equipment revenue | 41 | _ | _ | | 41 | | | | | | |
| Other revenue | 40 | _ | 2 | (e) | 42 | | | | | | |
| Total Sirius XM revenue | 1,467 | _ | 2 | _ | 1,469 | | | | | | |
| Pandora: | | | | | | | | | | | |
| Subscriber revenue | _ | 126 | _ | | 126 | | | | | | |
| Advertising revenue | _ | 292 | _ | | 292 | | | | | | |
| Total Pandora revenue | | 418 | | _ | 418 | | | | | | |
| Total consolidated revenue | 1,467 | 418 | 2 | _ | 1,887 | | | | | | |
| Cost of services | 1,107 | | _ | | 1,007 | | | | | | |
| Sirius XM: | | | | | | | | | | | |
| Revenue share and royalties | 343 | _ | _ | | 343 | | | | | | |
| Programming and content | 96 | _ | _ | | 96 | | | | | | |
| Customer service and billing | 95 | _ | _ | | 95 | | | | | | |
| Transmission | 24 | _ | _ | | 24 | | | | | | |
| Cost of equipment | 7 | _ | _ | | 7 | | | | | | |
| Total Sirius XM cost of services | 565 | | | _ | 565 | | | | | | |
| Pandora: | 303 | | <u> </u> | | 303 | | | | | | |
| Revenue share and royalties | | 235 | | | 235 | | | | | | |
| · | <u> </u> | 3 | _ | | 3 | | | | | | |
| Programming and content Customer service and billing | _ | 25 | _ | | 25 | | | | | | |
| Transmission | <u> </u> | 14 | <u> </u> | | 14 | | | | | | |
| | | | | _ | | | | | | | |
| Total Pandora cost of services | | 277 | | _ | 277 | | | | | | |
| Total consolidated cost of services | 565 | 277 | _ | | 842 | | | | | | |
| Subscriber acquisition costs | 109 | _ | _ | | 109 | | | | | | |
| Sales and marketing | 117 | 97 | _ | | 214 | | | | | | |
| Engineering, design and development | 31 | 38 | - | | 69 | | | | | | |
| General and administrative | 86 | 49 | (9) | (f) | 126 | | | | | | |
| Depreciation and amortization | 76 | 16 | 25 | (g) | 117 | | | | | | |
| Total operating expenses | 984 | 477 | 16 | _ | 1,477 | | | | | | |
| Income from operations | 483 | (59) | (14) | | 410 | | | | | | |
| Other (expense) income: | | | | | | | | | | | |
| Interest expense | (86) | (7) | _ | | (93) | | | | | | |
| Loss on extinguishment of debt | _ | _ | _ | | _ | | | | | | |
| Other (expense) income | (42) | 2 | 43 | (h) | 3 | | | | | | |
| Total other (expense) income | (128) | (5) | 43 | | (90) | | | | | | |
| Income before income taxes | 355 | (64) | 29 | _ | 320 | | | | | | |
| Income tax expense | (12) | _ | 9 | (i) | (3) | | | | | | |
| Net income | \$ 343 | \$ (64) | \$ 38 | | \$ 317 | | | | | | |
| | ψ 5 4 5 | Ψ (04) | Ψ 36 | = | Ψ 317 | | | | | | |

⁽d) Represents Pandora's results for the period July 1, 2018 through September 30, 2018.

This adjustment eliminates the impact of additional revenue associated with certain programming agreements recorded as part of the XM (e) Merger.

⁽f) This adjustment eliminates the impact of transaction related costs, recorded by Pandora, to advisers for the planned acquisition by Sirius XM.

This adjustment includes the impact of the additional amortization associated with the acquired intangible assets recorded as part of the Pandora Acquisition that are subject to (g) amortization, partially offset by normal depreciation associated with assets revalued in purchase accounting.

This adjustment eliminates the unrealized loss for the fair value adjustment of our preferred stock investment in

⁽h) Pandora.

(i) This adjustment to income taxes was calculated by applying Sirius XM's statutory tax rate at September 30, 2018 to the pro forma adjustments of \$29 and Pandora's loss before income tax of \$(64).

| | | | Predecessor Finan | | Purchase Price Accounting and Pro | , 2019 | | |
|---|-------------|-------------|-------------------|----------|--------------------------------------|--------|----|-----------|
| _ | | As Reported | Information (j | <u> </u> | Forma Adjustments | Ref | | Pro Forma |
| Revenue | | | | | | | | |
| Sirius XM: | • | 1.105 | | | • | | • | |
| Subscriber revenue | \$ | 4,196 | \$ | _ | \$ — | | \$ | 4,196 |
| Advertising revenue | | 149 | | _ | _ | | | 149 |
| Equipment revenue | | 127 | | _ | _ | | | 127 |
| Other revenue | | 121 | | | 6 | (k) | | 127 |
| Total Sirius XM revenue | | 4,593 | | | 6 | _ | | 4,599 |
| Pandora: | | | | | | | | |
| Subscriber revenue | | 355 | | 46 | _ | | | 401 |
| Advertising revenue | | 784 | | 68 | _ | _ | | 852 |
| Total Pandora revenue | | 1,139 | 1 | 14 | | _ | | 1,253 |
| Total consolidated revenue | | 5,732 | 1 | 14 | 6 | | | 5,852 |
| Cost of services | | | | | | | | |
| Sirius XM: | | | | | | | | |
| Revenue share and royalties | | 1,065 | | _ | _ | | | 1,065 |
| Programming and content | | 328 | | _ | _ | | | 328 |
| Customer service and billing | | 296 | | _ | _ | | | 296 |
| Transmission | | 79 | | _ | _ | | | 79 |
| Cost of equipment | | 20 | | | _ | _ | | 20 |
| Total Sirius XM cost of services | | 1,788 | | | _ | | | 1,788 |
| Pandora: | | | | | | | | |
| Revenue share and royalties | | 619 | | 71 | 11 | (1) | | 701 |
| Programming and content | | 10 | | _ | _ | | | 10 |
| Customer service and billing | | 56 | | 8 | _ | | | 64 |
| Transmission | | 38 | | 5 | _ | | | 43 |
| Total Pandora cost of services | ' | 723 | | 84 | 11 | _ | | 818 |
| Total consolidated cost of services | | 2,511 | | 84 | 11 | _ | | 2,606 |
| Subscriber acquisition costs | | 313 | | | _ | | | 313 |
| Sales and marketing | | 648 | | 36 | _ | | | 684 |
| Engineering, design and development | | 206 | | 14 | _ | | | 220 |
| General and administrative | | 379 | | 16 | _ | | | 395 |
| Depreciation and amortization | | 344 | | 6 | 9 | (m) | | 359 |
| Acquisition and other related costs | | 83 | | 1 | (84) | (n) | | _ |
| Total operating expenses | | 4,484 | 1 | 57 | (64) | _ | | 4,577 |
| Income (loss) from operations | | 1,248 | | 43) | 70 | _ | | 1,275 |
| Other (expense) income: | | 1,240 | (| 73) | 70 | | | 1,273 |
| Interest expense | | (291) | | (2) | | | | (293) |
| Loss on extinguishment of debt | | (57) | | (2) — | | | | (57) |
| Other (expense) income | | (2) | | 1 | | | | (1) |
| Total other (expense) income | | | | | _ | | | |
| | | (350) | | (1) | | _ | | (351 |
| Income (loss) before income taxes | | 898 | (| 44) | 70 | (.) | | 924 |
| Income tax expense | | (227) | _ | | (7) | (o) | | (234 |
| Net income (i) Represents Pandora's results for the period January 1 | \$ | 671 | \$ (| 44) | \$ 63 | _ | \$ | 690 |

Represents Pandora's results for the period January 1, 2019 through January 31, 2019.

⁽k) This adjustment eliminates the impact of additional revenue associated with certain programming agreements recorded as part of the XM Merger.

⁽l) This adjustment includes the impact of additional expense associated with minimum guarantee royalty contracts recorded as part of the Pandora Acquisition.

- This adjustment includes the impact of the additional amortization associated with the acquired intangible assets recorded as part of the Pandora Acquisition that are subject to amortization, partially offset by normal depreciation associated with assets revalued in purchase accounting. This adjustment eliminates the impact of acquisition and other related
- (n)
- This adjustment to income taxes was calculated by applying Sirius XM's statutory tax rate at September 30, 2019 to the pro forma adjustments of \$70 and Pandora's pre-acquisition (o) loss before income tax of \$(44).

| | Unaudited for the Nine Months Ended September 30, 2018 | | | | | | | | | |
|--|--|-------------|---------|---------------------------------|----|---|-----|----|-----------|--|
| | | As Reported | | essor Financial ormation (p) | | Purchase Price Accounting and Pro Forma Adjustments | Ref | | Pro Forma | |
| Revenue | | | | | | | | | | |
| Sirius XM: | | | | | | | | | | |
| Subscriber revenue | \$ | 3,903 | \$ | _ | \$ | _ | | \$ | 3,903 | |
| Advertising revenue | | 135 | | _ | | _ | | | 135 | |
| Equipment revenue | | 113 | | _ | | _ | | | 113 | |
| Other revenue | | 124 | | _ | | 6 | (q) | | 130 | |
| Total Sirius XM revenue | | 4,275 | | _ | | 6 | | | 4,281 | |
| Pandora: | | | | | | | | | | |
| Subscriber revenue | | _ | | 345 | | _ | | | 345 | |
| Advertising revenue | | _ | | 778 | | _ | | | 778 | |
| Total Pandora revenue | | | | 1,123 | | _ | | | 1,123 | |
| Total consolidated revenue | | 4,275 | | 1,123 | | 6 | | | 5,404 | |
| Cost of services | | | | | | | | | | |
| Sirius XM: | | | | | | | | | | |
| Revenue share and royalties | | 1,057 | | _ | | _ | | | 1,057 | |
| Programming and content | | 303 | | _ | | _ | | | 303 | |
| Customer service and billing | | 284 | | _ | | _ | | | 284 | |
| Transmission | | 70 | | _ | | _ | | | 70 | |
| Cost of equipment | | 22 | | _ | | _ | | | 22 | |
| Total Sirius XM cost of services | | 1,736 | | _ | | _ | | | 1,736 | |
| Pandora: | | | | | | | | | | |
| Revenue share and royalties | | _ | | 694 | | _ | | | 694 | |
| Programming and content | | _ | | 7 | | _ | | | 7 | |
| Customer service and billing | | _ | | 69 | | _ | | | 69 | |
| Transmission | | _ | | 38 | | _ | | | 38 | |
| Total Pandora cost of services | | _ | | 808 | | _ | | | 808 | |
| Total consolidated cost of services | | 1,736 | | 808 | | _ | | | 2,544 | |
| Subscriber acquisition costs | | 352 | | _ | | _ | | | 352 | |
| Sales and marketing | | 344 | | 294 | | _ | | | 638 | |
| Engineering, design and development | | 89 | | 106 | | _ | | | 195 | |
| General and administrative | | 264 | | 133 | | (9) | (r) | | 388 | |
| Depreciation and amortization | | 222 | | 44 | | 79 | (s) | | 345 | |
| Total operating expenses | | 3,007 | | 1,385 | | 70 | (=) | | 4,462 | |
| Income (loss) from operations | | 1,268 | | (262) | | (64) | | | 942 | |
| Other (expense) income: | | 1,200 | | (202) | | (01) | | | 7.2 | |
| Interest expense | | (263) | | (21) | | _ | | | (284) | |
| Loss on extinguishment of debt | | (203) | | (17) | | _ | | | (17) | |
| Other (expense) income | | 82 | | 6 | | (74) | (t) | | 14 | |
| Total other (expense) income | | (181) | | (32) | | (74) | (1) | | (287) | |
| Income (loss) before income taxes | | 1,087 | | (294) | | (138) | | | 655 | |
| Income tax expense | | (162) | | 7 | | 108 | (u) | | (47) | |
| Net income | \$ | 925 | \$ | (287) | \$ | | (u) | \$ | 608 | |
| (n) Panacente Pandora's results for the period January 1, 2018 through | | | | (207) | Ф | (30) | | Ф | 008 | |

Represents Pandora's results for the period January 1, 2018 through September 30, (p)

- (q) This adjustment eliminates the impact of additional revenue associated with certain programming agreements recorded as part of the XM Merger
- (r) This adjustment eliminates the impact of transaction related costs, recorded by Pandora, to advisers for the planned acquisition by Sirius YM
- (s) This adjustment includes the impact of the additional amortization associated with the acquired intangible assets recorded as part of the Pandora Acquisition that are subject to amortization, partially offset by normal depreciation associated with assets revalued in purchase accounting.
- (t) This adjustment eliminates the unrealized gain for the fair value adjustment of our preferred stock investment in
- (u) This adjustment to income taxes was calculated by applying Sirius XM's statutory tax rate at September 30, 2018 to the pro forma adjustments of \$(138) and Pandora's loss before income tax of \$(294).

Key Financial and Operating Performance Metrics

In this section, we present certain financial performance measures some of which are presented as Non-GAAP items, which include free cash flow and adjusted EBITDA. We also present certain operating performance measures. Our adjusted EBITDA excludes the impact of share-based payment expense and certain purchase price accounting adjustments related to the merger of Sirius and XM (the "XM Merger") and the Pandora Acquisition. Additionally, when applicable, our adjusted EBITDA metric excludes the effect of significant items that do not relate to the on-going performance of our business. We use these Non-GAAP financial and operating performance measures to manage our business, to set operational goals and as a basis for determining performance-based compensation for our employees. See the accompanying glossary on pages 60 through 63 for more details and for the reconciliation to the most directly comparable GAAP measure (where applicable).

We believe these Non-GAAP financial and operating performance measures provide useful information to investors regarding our financial condition and results of operations. We believe these Non-GAAP financial and operating performance measures may be useful to investors in evaluating our core trends because they provide a more direct view of our underlying costs. We believe investors may use our adjusted EBITDA to estimate our current enterprise value and to make investment decisions. We believe free cash flow provides useful supplemental information to investors regarding our cash available for future subscriber acquisitions and capital expenditures, to repurchase or retire debt, to acquire other companies and our ability to return capital to stockholders. By providing these Non-GAAP financial and operating performance measures, together with the reconcilitations to the most directly comparable GAAP measure (where applicable), we believe we are enhancing investors' understanding of our business and our results of operations.

Our Non-GAAP financial measures should be viewed in addition to, and not as an alternative for or superior to, our reported results prepared in accordance with GAAP. In addition, our Non-GAAP financial measures may not be comparable to similarly-titled measures by other companies. Please refer to the glossary (pages 60 through 63) for a further discussion of such Non-GAAP financial and operating performance measures and reconciliations to the most directly comparable GAAP measure (where applicable). Subscribers and subscription related revenues and expenses associated with our connected vehicle services and Sirius XM Canada are not included in Sirius XM's subscriber count or subscriber-based operating metrics.

Set forth below are our subscriber balances as of September 30, 2019 compared to September 30, 2018.

| | As of Sep | tember 30, | 2019 vs 20 | 18 Change |
|-------------------------------------|-----------|------------|------------|-----------|
| (subscribers in thousands) | 2019 | 2018 (1) | Amount | % |
| Sirius XM | | | | |
| Self-pay subscribers | 29,637 | 28,501 | 1,136 | 4 % |
| Paid promotional subscribers | 4,917 | 5,192 | (275) | (5)% |
| Ending subscribers | 34,554 | 33,693 | 861 | 3 % |
| Traffic users | 9,378 | 8,359 | 1,019 | 12 % |
| Sirius XM Canada subscribers | 2,706 | 2,667 | 39 | 1 % |
| | | | | |
| Pandora | | | | |
| Monthly active users - all services | 63,100 | 68,785 | (5,685) | (8)% |
| Self-pay subscribers | 6,257 | 5,996 | 261 | 4 % |
| Paid promotional subscribers | 45 | 759 | (714) | (94)% |
| Ending subscribers | 6,302 | 6,755 | (453) | (7)% |

nm - not meaningful

The following table contains our Non-GAAP financial and operating performance measures which are based on our adjusted results of operations for the three and nine months ended September 30, 2019 and 2018.

| | | | | | | | 2019 vs 20 | 18 (| Change | |
|---|----|------------------------|-------------|----------------------------|-------------|--------------|------------|------|----------|--------|
| | Fo | or the Three Septen | | For the Nine Septen | | Three Moi | nths | | Nine Mon | ıths |
| (subscribers in thousands) | | 2019 | 2018 (2) | 2019 (1) | 2018 (3) | Amount | % | | Amount | % |
| Sirius XM | | | | | | · | | | | |
| Self-pay subscribers | | 302 | 298 | 723 | 988 | 4 | 1 % | | (265) | (27)% |
| Paid promotional subscribers | | (92) | (100) | (207) | (31) | 8 | (8)% | | (176) | 568 % |
| Net additions | | 210 | 198 | 516 | 957 | 12 | 6 % | | (441) | (46)% |
| Weighted average number of subscribers | | 34,397 | 33,545 | 34,181 | 33,192 | 852 | 3 % | | 989 | 3 % |
| Average self-pay monthly churn | | 1.7% | 1.8% | 1.7% | 1.7% | (0.1)% | (6)% | | % | — % |
| ARPU (4) | \$ | 13.90 | \$ 13.48 | \$ 13.75 | \$ 13.24 | \$ 0.42 | 3 % | \$ | 0.51 | 4 % |
| SAC, per installation | \$ | 21.01 | \$ 23.67 | \$ 22.62 | \$ 26.50 | \$ (2.66) | (11)% | \$ | (3.88) | (15)% |
| Pandora | | | | | | | | | | |
| Self-pay subscribers | | 33 | 20 | 343 | 518 | 13 | 65 % | | (175) | (34)% |
| Paid promotional subscribers | | (688) | 759 | (711) | 759 | (1,447) | (191)% | | (1,470) | (194)% |
| Net additions | | (655) | 779 | (368) | 1,277 | (1,434) | (184)% | | (1,645) | (129)% |
| Weighted average number of subscribers | | 6,753 | 6,270 | 6,778 | 5,865 | 483 | 8 % | | 913 | 16 % |
| ARPU | \$ | 6.46 | \$ 6.68 | \$ 6.56 | \$ 6.51 | \$ (0.22) | (3)% | \$ | 0.05 | 1 % |
| Ad supported listener hours (in billions) | | 3.32 | 3.59 | 10.23 | 11.30 | (0.27) | (8)% | | (1.07) | (9)% |
| Advertising revenue per thousand listener hours (RPM) | \$ | 85.33 | \$ 77.84 | \$ 75.96 | \$ 67.14 | \$ 7.49 | 10 % | \$ | 8.82 | 13 % |
| Licensing costs per thousand listener hours (LPM) | \$ | 39.05 | \$ 37.80 | \$ 37.83 | \$ 36.99 | \$ 1.25 | 3 % | \$ | 0.84 | 2 % |
| Licensing costs per paid subscriber (LPU) | \$ | 4.09 | \$ 4.51 | \$ 4.07 | \$ 4.64 | \$ (0.42) | (9)% | \$ | (0.57) | (12)% |
| | | | | | | | | | | |
| Total Company | | | | | | | | | | |
| Adjusted EBITDA | \$ | 657 | \$ 585 | \$ 1,841 | \$ 1,539 | \$ 72 | 12 % | \$ | 302 | 20 % |
| Free cash flow nm - not meaningful | \$ | 465 | \$ 288 | \$ 1,239 | \$ 1,101 | \$ 177 | 61 % | \$ | 138 | 13 % |

⁽¹⁾ Includes Pandora's results for the nine month period, including pre-acquisition results for the period January 1, 2019 through January 31, 2019.

⁽¹⁾ Includes Pandora's results as of September 30,

- Includes Pandora's pre-acquisition results for the period July 1, 2018 through September 30, 2018
- (3) Includes Pandora's pre-acquisition results for the period January 1, 2018 through September 30, 2018
- (4) ARPU for Sirius XM excludes subscriber revenue from our connected vehicle services of \$41 and \$30 for the three months and \$116 and \$81 for the nine months ended September 30, 2019 and 2018, respectively.

Sirius XM

Subscribers. At September 30, 2019, Sirius XM had approximately 34,554 subscribers, an increase of 861, or 3%, from the approximately 33,693 as of September 30, 2018. The increase in subscribers was primarily due to growth in our self-pay subscriber base from subsequent owner trial conversions as well as subscriber win back programs.

For the three months ended September 30, 2019 and 2018, net additions were 210 and 198, respectively. For the nine months ended September 30, 2019 and 2018, net additions were 516 and 957, respectively. Paid promotional subscribers decreased due to declines in shipments and trial starts from automakers offering paid subscriptions. Self-pay net additions decreased primarily due to increases in vehicle related deactivations.

Traffic Users. We offer services that provide graphic information as to road closings, traffic flow and incident data to consumers with compatible in-vehicle navigation systems. At September 30, 2019, Sirius XM had approximately 9,378 traffic users, an increase of 1,019 users, or 12%, from the approximately 8,359 traffic users as of September 30, 2018.

Sirius XM Canada Subscribers. At September 30, 2019, Sirius XM Canada had approximately 2,706 subscribers, an increase of 39, or 1%, from the approximately 2,667 Sirius XM Canada subscribers as of September 30, 2018.

Average Self-pay Monthly Churn is derived by dividing the monthly average of self-pay deactivations for the period by the average number of self-pay subscribers for the period. (See accompanying glossary on pages 60 through 63 for more details.)

For the three months ended September 30, 2019 and 2018, our average self-pay monthly churn rate was 1.7% and 1.8%, respectively. For the nine months ended September 30, 2019 and 2018, our average self-pay monthly churn rate was 1.7%. The decrease for the three month period was primarily driven by improvements in both voluntary and non-pay churn.

ARPU is derived from total earned Sirius XM subscriber revenue (excluding revenue derived from our connected vehicle services) and net advertising revenue, divided by the number of months in the period, divided by the daily weighted average number of subscribers for the period. (See the accompanying glossary on pages 60 through 63 for more details.)

For the three months ended September 30, 2019 and 2018, subscriber ARPU - Sirius XM was\$13.90 and \$13.48, respectively. For the nine months ended September 30, 2019 and 2018, subscriber ARPU - Sirius XM was\$13.75 and \$13.24, respectively. The increase was driven by increases in the U. S. Music Royalty Fee and higher advertising revenue.

SAC, Per Installation, is derived from subscriber acquisition costs and margins from the sale of radios, components and accessories (excluding connected vehicle services), divided by the number of satellite radio installations in new vehicles and shipments of aftermarket radios for the period. (See the accompanying glossary on pages 60 through 63 for more details.)

For the three months ended September 30, 2019 and 2018, SAC, per installation, was \$21.01 and \$23.67, respectively. For the nine months ended September 30, 2019 and 2018, SAC, per installation, was \$22.62 and \$26.50, respectively. The decrease was driven by our transition to a new generation of chipsets and reductions to OEM hardware subsidy rates.

Pandora

Monthly Active Users. At September 30, 2019, Pandora had approximately 63,100 monthly active users, a decrease of 5,685 monthly active users, or 8%, from the 68,785 monthly active users as of September 30, 2018. The decrease in monthly active users was driven by an increase in ad-supported listener churn and a decrease in the number of new users.

Subscribers. At September 30, 2019, Pandora had approximately 6,302 subscribers, a decrease of 453, or 7%, from the approximately 6,755 as of September 30, 2018.

For the three months ended September 30, 2019 and 2018, net additions were (655) and 779, respectively. For the nine months ended September 30, 2019 and 2018, net additions were (368) and 1,277, respectively. Net additions decreased due to a decrease in paid promotional subscribers from the expiration of an agreement with T-Mobile

ARPU is defined as average monthly revenue per paid subscriber on our Pandora subscription services. (See the accompanying glossary on pages 60 through 63 for more details.)

For the three months ended September 30, 2019 and 2018, subscriber ARPU - Pandora was \$6.46 and \$6.68, respectively. For the nine months ended September 30, 2019 and 2018, subscriber ARPU - Pandora was \$6.56 and \$6.51, respectively. The decrease for the three month period in subscriber ARPU was primarily driven by a shift to Pandora Premium family plans. The increase for the nine month period was primarily driven by an increase in the number of Pandora Premium subscribers while the number of lower price Pandora Plus subscribers decreased.

Ad supported listener hours are a key indicator of our Pandora business and the engagement of our Pandora listeners. We include ad supported listener hours related to Pandora's non-radio content offerings in the definition of listener hours.

For the three months ended September 30, 2019 and 2018, ad supported listener hours were 3,320 and 3,590, respectively. For the nine months ended September 30, 2019 and 2018, ad supported listener hours were 10,230 and 11,300, respectively. The decline in ad supported listener hours was primarily driven by an increase in ad-supported listener churn.

RPM is a key indicator of our ability to monetize advertising inventory created by our listener hours on the Pandora services. Ad RPM is calculated by dividing advertising revenue by the number of thousands of listener hours of our Pandora advertising-based service.

For the three months ended September 30, 2019 and 2018, RPM was \$85.33 and \$77.84, respectively. For the nine months ended September 30, 2019 and 2018, RPM was \$75.96 and \$67.14, respectively. The increase was a result of an increase in the average price per ad due to new advertising products resulting in improved monetization and increased sell-through percentage.

LPM is tracked for our non-subscription, ad-supported service across all Pandora delivery platforms. The content acquisition costs included in our ad LPM calculations are based on the rates set by our license agreements with record labels, performing rights organizations and music publishers or the applicable rates set by the Copyright Royalty Board if we have not entered into a license agreement with the copyright owner of a particular sound recording.

For the three months ended September 30, 2019 and 2018, LPM was \$39.05 and \$37.80, respectively. For the nine months ended September 30, 2019 and 2018, LPM was \$37.83 and \$36.99, respectively. The increase was primarily driven by increases to track rates.

LPU is defined as average monthly licensing costs per paid subscriber on our Pandora subscription services. LPU is a key measure of our ability to manage costs for our subscription services.

For the three months ended September 30, 2019 and 2018, LPU was \$4.09 and \$4.51, respectively. For the nine months ended September 30, 2019 and 2018, LPU was \$4.07 and \$4.64, respectively. The decrease was due to lower minimum guarantees associated with our direct license agreements with major and independent labels, distributors, PROs and publishers.

Total Company

Adjusted EBITDA. Adjusted EBITDA is defined as net income before interest expense, income tax expense and depreciation and amortization, adjusted for pro forma information which includes of the predecessor periods. (Pandora's results for the period January 1, 2019 through January 31, 2019 and January 1, 2018 through September 30, 2018.) Adjusted EBITDA excludes the impact of other expense (income), loss on extinguishment of debt, other non-cash charges, such as certain purchase price accounting adjustments, share-based payment expense, and legal settlements and reserves (if applicable). (See the accompanying glossary on pages 60 through 63 for a reconciliation to GAAP and for more details.)

For the three months ended September 30, 2019 and 2018, adjusted EBITDA was \$657 and \$585, respectively, an increase of 12%, or \$72. For the nine months ended September 30, 2019 and 2018, adjusted EBITDA was \$1,841 and \$1,539, respectively, an increase of 20%, or \$302. The increase was due to growth in Sirius XM subscriber revenue from higher U.S. Music Royalty Fee due to a higher music royalty rate and a 3% increase in the daily weighted average number of subscribers, Pandora advertising revenue, and Pandora subscriber revenue growth from an increase in the

average number of self-pay subscribers; partially offset by higher revenue share and royalty costs driven by growth in our revenue.

Free Cash Flow includes cash provided by operations, net of additions to property and equipment, and restricted and other investment activity. (See the accompanying glossary on pages 60 through 63 for a reconciliation to GAAP and for more details.)

For the three months ended September 30, 2019 and 2018, free cash flow was \$465 and \$288, respectively, an increase of \$177, or 61%. For the nine months ended September 30, 2019 and 2018, free cash flow was \$1,239 and \$1,101, respectively, an increase of \$138, or 13%. The increase was driven by a one-time lump sum payment of \$150 to resolve all outstanding claims under our statutory license for sound recordings for the period January 1, 2007 through December 31, 2017, paid during the three months ended September 30, 2018. The increase for the nine month period was partially offset by a one-time payment of \$25 for a legal settlement paid during the three months ended March 31, 2019.

Liquidity and Capital Resources

Cash Flows for the nine months ended September 30, 2019 compared with the nine months ended September 30, 2018

The following table presents a summary of our cash flow activity for the periods set forth below:

| | For the Nine Months | | |
|---|---------------------|----------|--------------|
| | 2019 | 2018 | 2019 vs 2018 |
| Net cash provided by operating activities | \$ 1,485 | \$ 1,346 | \$ 139 |
| Net cash provided by (used in) investing activities | 126 | (251) | 377 |
| Net cash used in financing activities | (1,586) | (1,117) | (469) |
| Net increase (decrease) in cash, cash equivalents and restricted cash | 25 | (22) | 47 |
| Cash, cash equivalents and restricted cash at beginning of period | 65 | 79 | (14) |
| Cash, cash equivalents and restricted cash at end of period | \$ 90 | \$ 57 | \$ 33 |

Cash Flows Provided by Operating Activities

Cash flows provided by operating activities increased by \$139 to \$1,485 for the nine months ended September 30, 2019 from \$1,346 for the nine months ended September 30, 2018.

Our largest source of cash provided by operating activities is cash generated by subscription and subscription-related revenues. We also generate cash from the sale of advertising on Pandora, advertising on certain non-music channels on Sirius XM and the sale of satellite radios, components and accessories. Our primary uses of cash from operating activities include revenue share and royalty payments to distributors, programming and content providers, and payments to radio manufacturers, distributors and automakers. In addition, uses of cash from operating activities include payments to vendors to service, maintain and acquire listeners and subscribers, general corporate expenditures, and compensation and related costs.

Cash Flows Provided by (Used in) Investing Activities

Cash flows provided by investing activities in the nine months ended September 30, 2019 were primarily due to cash received from the Pandora Acquisition and from the sale of short-term investments, partially offset by spending primarily for capitalized software and hardware, and to construct replacement satellites. Cash flows used in investing activities in the nine months ended September 30, 2018 were primarily due to spending primarily for capitalized software and hardware, and to construct replacement satellites. We spent \$146 and \$121 on capitalized software and hardware as well as \$46 and \$91 to construct replacement satellites during thenine months ended September 30, 2019 and 2018, respectively.

Cash Flows Used in Financing Activities

Cash flows used in financing activities consists of the issuance and repayment of long-term debt, the purchase of common stock under our share repurchase program, the payment of cash dividends and taxes paid in lieu of shares issued for stock-based compensation. Proceeds from long-term debt have been used to fund our operations, construct and launch new satellites, invest in other infrastructure improvements and purchase shares of our common stock.

Cash flows used in financing activities in the nine months ended September 30, 2019 were primarily due to the purchase and retirement of shares of our common stock under our repurchase program for \$1,959, the redemption of Sirius XM's6.00%

Senior Notes due 2024 in aggregate amount of \$1,546, repayment under the Credit Facility of \$374, the repurchase for \$152 of Pandora's 1.75% Convertible Senior Notes due 2020, the payment of cash dividends of \$167, and payment of \$104 for taxes paid in lieu of shares issued for share-based compensation, partially offset by cash provided by the issuance of \$2,715 in aggregate principal amount of 5.500% Senior Notes due 2029, net of costs. Cash flows used in financing activities in thenine months ended September 30, 2018 were primarily due to the purchase and retirement for\$662 of shares of our common stock under our repurchase program, repayment under the Credit Facility of\$184, the payment of cash dividends of \$148 and payment of \$111 for taxes paid in lieu of shares issued for share-based compensation.

Future Liquidity and Capital Resource Requirements

Based upon our current business plans, we expect to fund operating expenses, capital expenditures, including the construction of replacement satellites, working capital requirements, interest payments, taxes and scheduled maturities of our debt with existing cash, cash flow from operations and borrowings under our Credit Facility. As of September 30, 2019, \$65 was outstanding under our Credit Facility. As the amount available for future borrowing is reduced by \$1 related to letters of credit issued for the benefit of Pandora, \$1,684 was available for future borrowing under our Credit Facility. We believe that we have sufficient cash and cash equivalents, as well as debt capacity, to cover our estimated short-term and long-term funding needs, including amounts to construct, launch and insure replacement satellites, as well as fund stock repurchases, future dividend payments and strategic opportunities.

Our ability to meet our debt and other obligations depends on our future operating performance and on economic, financial, competitive and other factors. We continually review our operations for opportunities to adjust the timing of expenditures to ensure that sufficient resources are maintained.

We regularly evaluate our business plans and strategy. These evaluations often result in changes to our business plans and strategy, some of which may be material and significantly change our cash requirements. These changes in our business plans or strategy may include: the acquisition of unique or compelling programming; the development and introduction of new features or services; significant new or enhanced distribution arrangements; investments in infrastructure, such as satellites, equipment or radio spectrum; and acquisitions and investments, including acquisitions and investments that are not directly related to our existing business.

We may from time to time purchase our outstanding debt through open market purchases, privately negotiated transactions or otherwise. Purchases or retirement of debt, if any, will depend on prevailing market conditions, liquidity requirements, contractual restrictions and other factors. The amounts involved may be material.

Capital Return Program

As of September 30, 2019, our board of directors had authorized for repurchase an aggregate of \$14,000 of our common stock. As of September 30, 2019, our cumulative repurchases since December 2012 under our stock repurchase program totaled 3,018 shares for \$12,640, and \$1,360 remained available for additional repurchases under our existing stock repurchase program authorization.

Shares of common stock may be purchased from time to time on the open market and in privately negotiated transactions, including in accelerated stock repurchase transactions and transactions with Liberty Media and its affiliates. We intend to fund the additional repurchases through a combination of cash on hand, cash generated by operations and future borrowings.

On October 10, 2019, our board of directors declared a quarterly dividend in the amount of \$0.01331 per share of common stock payable on November 29, 2019 to stockholders of record as of the close of business on November 8, 2019. Our board of directors expects to declare regular quarterly dividends, in an aggregate annual amount of \$0.05324 per share of common stock.

Debt Covenants

The indentures governing Sirius XM's senior notes and Pandora's convertible notes and the agreement governing the Sirius XM Credit Facility include restrictive covenants. As of September 30, 2019, we were in compliance with such covenants. For a discussion of our "Debt Covenants," refer to Note 12 to our unaudited consolidated financial statements in Part I, Item I, of this Quarterly Report on Form 10-Q.

Off-Balance Sheet Arrangements

We do not have any significant off-balance sheet arrangements other than those disclosed in Note 15 to our unaudited consolidated financial statements in Part I, Item I, of this Quarterly Report on Form 10-Q that are reasonably likely to have a material effect on our financial condition, results of operations, liquidity, capital expenditures or capital resources.

Contractual Cash Commitments

For a discussion of our "Contractual Cash Commitments," refer to Note 15 to our unaudited consolidated financial statements in Part I, Item I, of thisQuarterly Report on Form 10-Q.

Related Party Transactions

For a discussion of "Related Party Transactions," refer to Note 11 to our unaudited consolidated financial statements in Part II, Item 8, of thiQuarterly Report on Form 10-O.

Critical Accounting Policies and Estimates

For a discussion of our "Critical Accounting Policies and Estimates," refer to "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, 2018. There have been no material changes to our critical accounting policies and estimates since December 31, 2018.

Glossary

Monthly active users - the number of distinct registered users on the Pandora services, including subscribers, that have consumed content within the trailing 30 days to the end of the final calendar month of the period. The number of monthly active users on the Pandora services may overstate the number of unique individuals who actively use our Pandora service, as one individual may use multiple accounts. To become a registered user on the Pandora services, a person must sign-up using an email address or phone number, or access our service using a device with a unique identifier, which we use to create an account for our service.

Average self-pay monthly churn - the Sirius XM monthly average of self-pay deactivations for the period divided by the average number of self-pay subscribers for the period.

Adjusted EBITDA is defined as net income before interest expense, income tax expense and depreciation and amortization. We adjust EBITDA to exclude the impact of other expense (income) as well as certain other charges discussed below. Adjusted EBITDA is a Non-GAAP financial measure that excludes or adjusts for (if applicable): (i) certain adjustments as a result of the purchase price accounting for the XM Merger and the Pandora Acquisition, (ii) predecessor net income adjusted for certain expenses, including depreciation and amortization, other income (loss), and share-based payment expense for January 2019 and the nine months ended September 30, 2018, (iii) share-based payment expense and (iv) other significant operating expense (income) that do not relate to the on-going performance of our business. We believe adjusted EBITDA is a useful measure of the underlying trend of our operating performance, which provides useful information about our business apart from the costs associated with our capital structure and purchase price accounting. We believe investors find this Non-GAAP financial measure useful when analyzing our past operating performance with our current performance and comparing our operating performance to the performance of other communications, entertainment and media companies. We believe investors use adjusted EBITDA to estimate our current enterprise value and to make investment decisions. As a result of large capital investments in our satellite radio system, our results of operations reflect significant charges for depreciation expense. We believe the exclusion of share-based payment expense is useful as it is not directly related to the operational conditions of our business. We also believe the exclusion of the legal settlements and reserves, acquisition related costs, loss on extinguishment of debt and loss on disposal of assets, to the extent they occur during the period, is useful as they are significant expenses not incurred as part of our normal operations for the period.

Adjusted EBITDA has certain limitations in that it does not take into account the impact to our statements of comprehensive income of certain expenses, including share-based payment expense and certain purchase price accounting for the XM Merger and the Pandora Acquisition. We endeavor to compensate for the limitations of the Non-GAAP measure presented by also providing the comparable GAAP measure with equal or greater prominence and descriptions of the reconciling items, including quantifying such items, to derive the Non-GAAP measure. Investors that wish to compare and evaluate our operating results after giving effect for these costs, should refer to net income as disclosed in our unaudited consolidated statements of comprehensive income. Since adjusted EBITDA is a Non-GAAP financial performance measure, our calculation of adjusted EBITDA may be susceptible to varying calculations; may not be comparable to other similarly titled measures of other companies; and should not be considered in isolation, as a substitute for, or superior to measures of financial performance prepared in accordance with GAAP. The reconciliation of net income to the adjusted EBITDA is calculated as follows:

| | | For the Nine Months Ended September 30, | | | | |
|--------|--------|---|---|--|--|--|
| 2019 | 2018 | 2019 | 2018 | | | |
| \$ 246 | \$ 343 | \$ 671 | \$ 925 | | | |
| | | | | | | |
| _ | _ | 25 | 69 | | | |
| _ | _ | 83 | _ | | | |
| 65 | 29 | 171 | 100 | | | |
| 118 | 76 | 344 | 222 | | | |
| 104 | 86 | 291 | 263 | | | |
| 56 | _ | 57 | _ | | | |
| _ | 42 | 2 | (82) | | | |
| 70 | 12 | 227 | 162 | | | |
| | | | | | | |
| 2 | 2 | 6 | 6 | | | |
| (4) | _ | (11) | _ | | | |
| _ | (5) | (25) | (126) | | | |
| \$ 657 | \$ 585 | \$ 1,841 | \$ 1,539 | | | |
| | \$ 246 | \$ 246 \$ 343 65 29 118 76 104 86 56 42 70 12 2 2 (4) (5) | \$ 246 \$ 343 \$ 671 - - 25 - - 83 65 29 171 118 76 344 104 86 291 56 - 57 - 42 2 70 12 227 2 2 6 (4) - (11) - (5) (25) | | | |

(1) Acquisition and other related costs include \$21 of share-based compensation expense for the nine months ended September 30,

(2) Pro forma adjustment for three months ended September 30, 2018 includes Pandora's Net income for the three months ended September 30, 2018 of \$(64) plus Depreciation and amortization of \$16, Share-based payment expense of \$29, Interest expense of \$7, and transaction related costs recorded by Pandora related to its acquisition by Sirius XM of \$9, offset by Other expense (income) of \$2. Pro forma adjustment for the nine months ended September 30, 2019 includes Pandora's January 2019 Net income of \$(44) plus Depreciation and amortization of \$6, Share-based payment expense of \$11, Acquisition and other related costs of \$1, and Interest expense of \$2 offset by Other expense (income) of \$1. Pro forma adjustment for nine months ended September 30, 2018 of \$(287) plus Depreciation and amortization of \$44, Share-based payment expense of \$83, Loss on extinguishment of debt of \$17, Interest expense of \$21, and transaction related costs recorded by Pandora related to its acquisition by Sirius XM of \$9, offset by Other expense (income) of \$6 and Income tax benefit of \$7.

Free cash flow - is derived from cash flow provided by operating activities, net of additions to property and equipment and purchases of other investments. Free cash flow is a metric that our management and board of directors use to evaluate the cash generated by our operations, net of capital expenditures and other investment activity. In a capital intensive business, with significant investments in satellites, we look at our operating cash flow, net of these investing cash outflows, to determine cash available for future subscriber acquisition and capital expenditures, to repurchase or retire debt, to acquire other companies and to evaluate our ability to return capital to stockholders. We exclude from free cash flow certain items that do not relate to the on-going performance of our business, such as cash flows for acquisitions, strategic and short-term investments, and net loan activity with related parties and other equity investees. We believe free cash flow is an indicator of the long-term financial stability of our business. Free cash flow, which is reconciled to "Net cash provided by operating activities," is a Non-GAAP financial measure. This measure can be calculated by deducting amounts under the captions "Additions to property and equipment" and deducting or adding Restricted and other investment activity from "Net cash provided by operating activities" from the unaudited consolidated statements of cash flows. Free cash flow should be used in conjunction with other GAAP financial performance measures and may not be comparable to free cash flow measures presented by other companies. Free cash flow should be viewed as a supplemental measure rather than an alternative measure of cash flows from operating activities, as determined in accordance with GAAP. Free cash flow is limited and does not represent remaining cash flows available for discretionary expenditures due to the fact that the measure does not deduct the payments required for debt maturities. We believe free cash flow is calculated as follo

| | For th | For the Three Months Ended September 30, | | | | | For the Nine Months Ended September | | | |
|---|--------|--|----|-------|----|---------|-------------------------------------|---------|--|--|
| | | 2019 | | 2018 | | 2019 | | 2018 | | |
| Cash Flow information | | | | | | | | | | |
| Net cash provided by operating activities | \$ | 544 | \$ | 352 | \$ | 1,485 | \$ | 1,346 | | |
| Net cash provided by (used in) investing activities | \$ | (83) | \$ | (67) | \$ | 126 | \$ | (251) | | |
| Net cash used in financing activities | \$ | (597) | \$ | (302) | \$ | (1,586) | \$ | (1,117) | | |
| Free Cash Flow | | | | | | | | | | |
| Net cash provided by operating activities | \$ | 544 | \$ | 352 | \$ | 1,485 | \$ | 1,346 | | |
| Additions to property and equipment | | (79) | | (64) | | (239) | | (238) | | |
| Purchases of other investments | | _ | | _ | | (7) | | (7) | | |
| Free cash flow | \$ | 465 | \$ | 288 | \$ | 1,239 | \$ | 1,101 | | |

ARPU - Sirius XM ARPU is derived from total earned subscriber revenue (excluding revenue associated with our connected vehicle services), advertising revenue, divided by the number of months in the period, divided by the daily weighted average number of subscribers for the period. Pandora ARPU is defined as average monthly subscriber revenue per paid subscriber on our Pandora subscription services.

<u>Subscriber acquisition cost, per installation</u> - or SAC, per installation, is derived from subscriber acquisition costs and margins from the sale of radios and accessories (excluding connected vehicle services), divided by the number of satellite radio installations in new vehicles and shipments of aftermarket radios for the period. SAC, per installation, is calculated as follows:

| | For the Three Months Ended September 30, | | | | | For the Nine Months Ended September 30, | | | |
|---|--|-------|----|-------|----|---|----|-------|--|
| | | 2019 | | 2018 | | 2019 | | 2018 | |
| Subscriber acquisition costs, excluding connected vehicle services | \$ | 101 | \$ | 109 | \$ | 313 | \$ | 352 | |
| Less: margin from sales of radios and accessories, excluding connected vehicle services | | (38) | | (33) | | (106) | | (89) | |
| | \$ | 63 | \$ | 76 | \$ | 207 | \$ | 263 | |
| Installations | | 2,998 | | 3,227 | | 9,153 | | 9,920 | |
| SAC, per installation (a) | \$ | 21.01 | \$ | 23.67 | \$ | 22.62 | \$ | 26.50 | |
| | | | | | | | | | |

 (a) Amounts may not recalculate as a result of rounding.

Ad supported listener hours - is based on the total bytes served over our advertising supported platforms for each track that is requested and served from our Pandora servers, as measured by our internal analytics systems, whether or not a listener listens to the entire track. For non-music content such as podcasts, episodes are divided into approximately track-length parts, which are treated as tracks. To the extent that third-party measurements of advertising hours are not calculated using a similar server-based approach, the third-party measurements may differ from our measurements.

RPM - is calculated by dividing advertising revenue, excluding AdsWizz and other off-platform revenue, by the number of thousands of listener hours on our Pandora advertising-based service.

LPM - is calculated by dividing advertising licensing costs by the number of thousands of listener hours on our Pandora advertising-based service.

LPU - is calculated by dividing subscriber licensing costs by the number of paid subscribers on our Pandora subscription services.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURE ABOUT MARKET

As of September 30, 2019, we did not hold or issue any free-standing derivatives. We hold investments in money market funds and certificates of deposit. These securities are consistent with the objectives contained within our investment policy. The basic objectives of our investment policy are the preservation of capital, maintaining sufficient liquidity to meet operating requirements and maximizing yield. As of September 30, 2019, we also held the following material investment:

• In connection with the recapitalization of Sirius XM Canada, on May 25, 2017, we loaned Sirius XM Canada\$131 million. The loan is denominated in Canadian dollars and is subject to changes in foreign currency. It is considered a long-term investment with any unrealized gains or losses reported within Accumulated other comprehensive (loss) income. Such loan has a term of fifteen years, bears interest at a rate of 7.62% per annum and includes customary covenants and events of default, including an event of default relating to Sirius XM Canada's failure to maintain specified leverage ratios. The carrying value of the loan as of September 30, 2019 was \$129.0 million and approximates its fair value as of such date. Had the Canadian to U.S. dollar exchange rate been 10% lower as of September 30, 2019, the value of this loan would have been approximately \$13 million lower.

Our debt includes fixed rate instruments and the fair market value of our debt is sensitive to changes in interest rates. Sirius XM's borrowings under the Credit Facility carry a variable interest rate based on LIBOR plus an applicable rate based on its debt to operating cash flow ratio. We currently do not use interest rate derivative instruments to manage our exposure to interest rate fluctuations.

ITEM 4. CONTROLS AND PROCEDURES

Controls and Procedures

We maintain a set of disclosure controls and procedures designed to ensure that information required to be disclosed in reports that we file or submit under the Exchange Act of 1934, is recorded, processed, summarized and reported within the time periods specified in SEC rules and forms, and that such information is accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate, to allow timely decisions regarding required disclosures. The design of any disclosure controls and procedures is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Any controls and procedures, no matter how well designed and operated, can provide only reasonable, not absolute, assurance of achieving the desired control objectives.

As of September 30, 2019, an evaluation was performed under the supervision and with the participation of our management, including James E. Meyer, our Chief Executive Officer, and David J. Frear, our Senior Executive Vice President and Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures (as that term is defined in Rule 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934). Based on that evaluation, our management, including our Chief Executive Officer and our Chief Financial Officer, concluded that our disclosure controls and procedures were effective as of September 30, 2019.

Changes in Internal Control Over Financial Reporting

We acquired Pandora in February 2019. As a result of the acquisition, we are reviewing the internal controls of Pandora and are making appropriate changes as deemed necessary. Except for the changes in internal controls at Pandora, there has been no change in our internal control over financial reporting that occurred during the nine months ended September 30, 2019 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II — OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

In the ordinary course of business, we are a defendant or party to various claims and lawsuits, including those discussed below.

Telephone Consumer Protection Act Suits. On March 13, 2017, Thomas Buchanan, individually and on behalf of all others similarly situated, filed a class action complaint against Sirius XM in the United States District Court for the Northern District of Texas, Dallas Division. The plaintiff in this action alleges that Sirius XM violated the Telephone Consumer Protection Act of 1991 (the "TCPA") by, among other things, making telephone solicitations to persons on the National Do-Not-Call registry, a database established to allow consumers to exclude themselves from telemarketing calls unless they consent to receive the calls in a signed, written agreement, and making calls to consumers in violation of our internal Do-Not-Call registry. The plaintiff is seeking various forms of relief, including statutory damages of \$500 for each violation of the TCPA or, in the alternative, treble damages of up to \$1,500 for each knowing and willful violation of the TCPA and a permanent injunction prohibiting us from making, or having made, any calls to land lines that are listed on the National Do-Not-Call registry or our internal Do-Not-Call registry. The plaintiff has filed a motion seeking class certification, and that motion is pending.

Following a mediation, in April 2019, Sirius XM entered into an agreement to settle this purported class action suit. The settlement resolves the claims of consumers for the period October 2013 through January 2019. As part of the settlement, Sirius XM paid \$25 million into a non-reversionary settlement fund from which cash to class members, notice, administrative costs, and attorney's fees and costs will be paid. The settlement also contemplates that Sirius XM will provide three months of service to its All Access subscription package for those members of the class that elect to receive it, in lieu of cash, at no cost to those class members and who are not active subscribers at the time of the distribution. The availability of this three-month service option will not diminish the \$25 million common fund. As part of the settlement, Sirius XM will also implement change relating to its "Do-Not-Call" practices and telemarketing programs. Settlement of this matter is subject to, among other things, final approval by the Court.

Pre-1972 Sound Recording Litigation. On October 2, 2014, Flo & Eddie Inc. filed a class action suit against Pandora in the federal district court for the Central District of California. The complaint alleges a violation of California Civil Code Section 980, unfair competition, misappropriation and conversion in connection with the public performance of sound recordings recorded prior to February 15, 1972 (which we refer to as, "pre-1972 recordings"). On December 19, 2014, Pandora filed a motion to strike the complaint pursuant to California's Anti-Strategic Lawsuit Against Public Participation ("Anti-SLAPP") statute, which following denial of Pandora's motion was appealed to the Ninth Circuit Court of Appeals. In March 2017, the Ninth Circuit requested certification to the California Supreme Court on the substantive legal questions. The California Supreme Court accepted certification. In May 2019, the California Supreme Court issued an order dismissing consideration of the certified questions on the basis that, following the enactment of the Orrin G. Hatch-Bob Goodlatte Music Modernization Act, Pub. L. No. 115-264, 132 Stat. 3676 (2018) (the "MMA"), resolution of the questions posed by the Ninth Circuit Court of Appeals was no longer "necessary to . . . settle an important question of law."

In September and October 2015, Arthur and Barbara Sheridan filed separate class action suits against Pandora in the federal district courts for the Northern District of California and the District of New Jersey. The complaints allege a variety of violations of common law and state copyright statutes, common law misappropriation, unfair competition, conversion, unjust enrichment and violation of rights of publicity arising from allegations that Pandora owes royalties for the public performance of pre-1972 recordings. The Sheridan actions in California and New Jersey are currently stayed pending the Ninth Circuit's decision in Flo & Eddie, Inc. v. Pandora Media, Inc.

In September 2016, Ponderosa Twins Plus One and others filed a class action suit against Pandora alleging claims similar to those asserted in Flo & Eddie, Inc. v. Pandora Media Inc. This action is also currently stayed in the Northern District of California pending the Ninth Circuit's decision in Flo & Eddie, Inc. v. Pandora Media, Inc.

The MMA grants a newly available federal preemption defense to the claims asserted in the aforementioned lawsuits. In July 2019, Pandora made the required payments and reporting under the MMA for certain of its uses of pre-1972 recordings to avail itself of this federal preemption defense. Based on the federal preemption contained in the MMA (along with other considerations), Pandora asked the Ninth Circuit to order the dismissal of the *Flo & Eddie, Inc. v. Pandora Media, Inc.* case. On October 17, 2019, the Ninth Circuit Court of Appeals issued a memorandum disposition concluding that the question of whether the MMA preempts Flo and Eddie's claims challenging Pandora's performance of pre-1972 recordings "depends on various unanswered factual questions" and remanded the case to the District Court for further proceedings.

When the stays in the remaining cases - the twoSheridan v. Pandora Media, Inc. cases and the Ponderosa Twins Plus One et al. v. Pandora Mediacase - are lifted, Pandora expects to file motions to dismiss those actions as well.

We believe we have substantial defenses to the claims asserted in these actions, and we intend to defend these actions vigorously.

Other Matters. In the ordinary course of business, we are a defendant in various other lawsuits and arbitration proceedings, including derivative actions; actions filed by subscribers, both on behalf of themselves and on a class action basis; former employees; parties to contracts or leases; owners of patents, trademarks, copyrights or other intellectual property and certain contingencies related to Pandora. None of these other matters, in our opinion, is likely to have a material adverse effect on our business, financial condition or results of operations.

ITEM 1A. RISK FACTORS

We completed our acquisition of Pandora on February 1, 2019. In connection with our acquisition of Pandora, we amended and restated the risk factors that appear in Part I, "Item 1A. Risk Factors," in our Annual Report on Form 10-K for the year ended December 31, 2018 to give effect to such acquisition. Those amended and restated risk factors appear in Part I, "Item 1A. Risk Factors," in our Quarterly Report on Form 10-Q for the three months ended March 31, 2019.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

As of September 30, 2019, our board of directors had authorized for repurchase an aggregate of \$14.0 billion of our common stock. Our board of directors did not establish an end date for this stock repurchase program. Shares of common stock may be purchased from time to time on the open market, pursuant to pre-set trading plans meeting the requirements of Rule 10b5-1 under the Exchange Act, in privately negotiated transactions, including transactions with Liberty Media and its affiliates, or otherwise. As of September 30, 2019, our cumulative repurchases since December 2012 under our stock repurchase program totaled 3.0 billion shares for \$12.6 billion, and \$1.4 billion remained available under our stock repurchase program. The size and timing of these purchases will be based on a number of factors, including price and business and market conditions

The following table provides information about our purchases of equity securities registered pursuant to Section 12 of the Exchange Act, as amended, during the quarter ended September 30, 2019:

| Period | Total Number of Shares Purchased | Av | erage Price Paid Per Share (a) | Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs | V Ma | approximate Dollar Value of Shares that Bay Yet Be Purchased Under the Plans or Programs (a) |
|--|-------------------------------------|----|-----------------------------------|--|---------|--|
| July 1, 2019 - July 31, 2019 | 50,345,800 | \$ | 6.03 | 50,345,800 | \$ | 1,520,933,162 |
| August 1, 2019 - August 30, 2019 | 16,294,873 | \$ | 6.16 | 16,294,873 | \$ | 1,420,609,394 |
| September 1, 2019 - September 30, 2019 | 9,642,000 | \$ | 6.30 | 9,642,000 | \$ | 1,359,910,917 |
| Total | 76,282,673 | \$ | 6.09 | 76,282,673 | | |

⁽a) These amounts include fees and commissions associated with the shares repurchased.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

Not applicable.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

ITEM 5. OTHER INFORMATION

None.

ITEM 6. EXHIBITS

See Exhibit Index attached hereto, which is incorporated herein by reference.

EXHIBIT INDEX

| Exhibit | Description |
|---------|--|
| 4.1 | Indenture, dated as of July 2, 2019, relating to the 4.625% Senior Notes due 2024, between Sirius XM Radio Inc., the guarantors named therein and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.1 to Sirius XM Holdings Inc.'s Current Report on Form 8-K filed on July 2, 2019 (File No. 001-34295)). |
| 31.1 | Certificate of James E. Meyer, Chief Executive Officer, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (filed herewith). |
| 31.2 | Certificate of David J. Frear, Senior Executive Vice President and Chief Financial Officer, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (filed herewith). |
| 32.1 | Certificate of James E. Meyer, Chief Executive Officer, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (furnished herewith). |
| 32.2 | Certificate of David J. Frear, Senior Executive Vice President and Chief Financial Officer, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (furnished herewith). |
| 101.1 | The following financial information from our Quarterly Report on Form 10-Q for the quarter ended September 30, 2019 formatted in eXtensible Business Reporting Language (XBRL): (i) Consolidated Statements of Comprehensive Income (Unaudited) for the three and nine months ended September 30, 2019 and 2018; (ii) Consolidated Balance Sheets as of September 30, 2019 (Unaudited) and December 31, 2018; (iii) Consolidated Statements of Stockholders' Equity (Deficit) for the three and nine months ended September 30, 2019 and 2018 (Unaudited); (iv) Consolidated Statements of Cash Flows (Unaudited) for the nine months ended September 30, 2019 and 2018; and (v) Notes to Consolidated Financial Statements (Unaudited). |
| 104 | The cover page from the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2019, formatted in Inline XBRL |

The agreements and other documents filed as exhibits to this report are not intended to provide factual information or other disclosure other than with respect to the terms of the agreements or other documents themselves, and you should not rely on them other than for that purpose. In particular, any representations and warranties made by us in these agreements or other documents were made solely within the specific context of the relevant agreement or document as of the date they were made and may not describe the actual state of affairs for any other purpose or at any other time.

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 on this 31st day of October 2019.

SIRIUS XM HOLDINGS INC.

By: /s/ David J. Frear

David J. Frear
Senior Executive Vice President and
Chief Financial Officer
(Principal Financial Officer and Authorized Officer)

CERTIFICATION OF CHIEF EXECUTIVE OFFICER

I, James E. Meyer, certify that:

- I have reviewed this Quarterly Report on Form 10-Q for the quarterly period endedSeptember 30, 2019 of Sirius XM Holdings Inc.;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

By: /s/ James E. Meyer

James E. Meyer Chief Executive Officer (Principal Executive Officer)

October 31, 2019

CERTIFICATION OF CHIEF FINANCIAL OFFICER

I, David J. Frear, certify that:

- I have reviewed this Quarterly Report on Form 10-Q for the quarterly period endedSeptember 30, 2019 of Sirius XM Holdings Inc.;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

By: /s/ David J. Frear

David J. Frear Senior Executive Vice President and Chief Financial Officer (Principal Financial Officer)

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of Sirius XM Holdings Inc. (the "Company") on Form 10-Q for the quarterly period endedseptember 30, 2019 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, James E. Meyer, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934;
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

By: /s/ James E. Meyer

James E. Meyer Chief Executive Officer (Principal Executive Officer)

October 31, 2019

A signed original of this written statement required by Section 906, or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of Sirius XM Holdings Inc. (the "Company") on Form 10-Q for the quarterly period endedeptember 30, 2019 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, David J. Frear, Senior Executive Vice President and Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934;
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

By: /s/ David J. Frear

David J. Frear Senior Executive Vice President and Chief Financial Officer (Principal Financial Officer)

October 31, 2019

A signed original of this written statement required by Section 906, or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.