InterDigital, Inc.
Form 10-K
February 21, 2019
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UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, DC 20549
Form 10-K

þ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2018
OR
o TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from to

Commission file number 1-33579

INTERDIGITAL, INC.
(Exact name of registrant as specified in its charter)

Pennsylvania	82-4936666
(State or other jurisdiction of incorporation or organization)	(IRS Employer Identification No.)
200 Bellevue Parkway, Suite 300 Wilmington, Delaware	19809
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code (302) 281-3600

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

Common Stock (par value $0.01 per share)	NASDAQ Stock Market LLC
(title of class)	(name of exchange on which registered)

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

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

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

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

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

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 229.405) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. þ

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

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

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

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

The aggregate market value of the voting and non-voting common equity held by non-affiliates computed by reference to the price at which the common equity was last sold, or the average bid and asked price of such common equity, as of the last business day of the registrant's most recently completed second fiscal quarter: $2,688,325,937 as of June 30, 2018.

The number of shares outstanding of the registrant's common stock was 32,617,380 as of February 19, 2019.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive proxy statement to be filed pursuant to Regulation 14A in connection with the registrant's 2019 annual meeting of shareholders are incorporated by reference into Items 10, 11, 12, 13 and 14 of Part III of this Form 10-K.

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In this Form 10-K, the words "we," "our," "us," "the Company" and "InterDigital" refer to InterDigital, Inc. and/or its subsidiaries, individually and/or collectively, unless otherwise indicated or the context otherwise requires.

InterDigital® is a registered trademark of InterDigital, Inc. Creating the Living Network, oneMPOWER, oneTRANSPORT and XCellAir are trademarks of InterDigital. All other trademarks, service marks and/or trade names appearing in this Form 10-K are the property of their respective holders.

EXPLANATORY NOTE ABOUT INTERDIGITAL, INC.

On April 3, 2018, for the purpose of reorganizing its holding company structure, InterDigital, Inc., a Pennsylvania corporation and then-existing NASDAQ-listed registrant (the "Predecessor Company"), executed an Agreement and Plan of Merger ("Merger Agreement") with InterDigital Parent, Inc., a Pennsylvania corporation (the "Successor Company") 100% owned by the Predecessor Company, and another newly formed Pennsylvania corporation owned 100% by the Successor Company ("Merger Sub"). Pursuant to the Merger Agreement, on April 3, 2018, Merger Sub merged (the "Merger" or "Reorganization") with and into the Predecessor Company, with the Predecessor Company surviving. As a result of the Merger, the Predecessor Company is now a wholly owned subsidiary of the Successor Company. Neither the business conducted by the Successor Company and the Predecessor Company in the aggregate, nor the consolidated assets and liabilities of the Successor Company and the Predecessor Company in the aggregate, changed as a result of the Reorganization. By virtue of the Merger, each share of the Predecessor Company's

outstanding common stock was converted, on a share-for-share basis,

into a share of common stock of the Successor Company. As a result, each shareholder of the Predecessor Company became the owner of an identical number of shares of common stock of the Successor Company. Immediately following the Reorganization, the Successor Company was renamed as “InterDigital, Inc.,” identical to the Predecessor Company’s name prior to the Merger. The Successor Company’s common stock continues to be traded under the name “InterDigital, Inc.” and continues to be listed on the NASDAQ Global Select Market under the ticker symbol “IDCC.” In addition, immediately following the Merger the directors and executive officers of the Successor Company were the same individuals who were directors and executive officers, respectively, of the Predecessor Company immediately prior to the Merger.

For the purpose of this Annual Report on Form 10-K, references to the Company, our Board of Directors or any committee thereof, or our management, employees, business or financial results at or for any period prior to the Merger refer to those of the Predecessor Company and thereafter to those of the Successor Company.

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PART I

Item 1. BUSINESS.

Overview

InterDigital, Inc. ("InterDigital") designs and develops advanced technologies that enable and enhance wireless communications and capabilities. Since our founding in 1972, our engineers have designed and developed a wide range of innovations that are used in digital cellular and wireless products and networks, including 2G, 3G, 4G and IEEE 802-related products and networks, as well as video processing, coding and display technology. We are a leading contributor of innovation to the wireless communications industry, as well as a leading holder of patents in the video industry.

Given our long history and focus on advanced research and development, InterDigital has one of the most significant patent portfolios in the wireless and video industries. As of December 31, 2018, InterDigital's wholly owned subsidiaries held a portfolio of approximately 34,000 patents and patent applications related to a range of technologies, including the fundamental technologies that enable wireless communications, video encoding, display technology, and other areas relevant to the wireless and consumer electronics industries. In that portfolio are a number of patents and patent applications that we believe are or may be essential or may become essential to standards in cellular and other wireless communications as well as video encoding. Those wireless standards include 3G, 4G and the IEEE 802 suite of standards, as well as patents and patent applications that we believe are or may become essential to 5G standards that currently exist and are under continued development. In terms of video technology, our portfolio includes patents and applications relating to standards established by the ISO/IEC Moving Picture Expert Group (MPEG), the ITU-T Video Coding Expert Group (VCEG), the Joint Collaborative Team on Video Coding (JCT-VC) and the Joint Video Expert Team (JVET), among others.

The wireless portfolio has largely been built through internal development, supplemented by joint development projects with other companies as well as select acquisitions of patents and companies. Products incorporating our patented inventions in wireless include: mobile devices, such as cellular phones, tablets, notebook computers and wireless personal digital assistants; wireless infrastructure equipment, such as base stations; components, dongles and modules for wireless devices; and IoT devices and software platforms. The video technology portfolio largely represents patents and applications that InterDigital acquired through our purchase of Technicolor SA’s patent licensing business (the "Technicolor Acquisition"), completed in July 2018, supplemented by internal development in the area of video technology. Products incorporating our patented inventions in video include cellular phones, tablets, notebook computers, computers, televisions, gaming consoles, set-top boxes, streaming devices and other consumer electronics.

InterDigital derives revenues primarily from patent licensing, with contributions from patent sales, product sales, technology solutions licensing and sales and engineering services. On January 1, 2018, we adopted the requirements of new revenue accounting guidance, ASU No. 2014-09 "Revenue from Contracts with Customers (Topic 606)" ("ASC 606"), using the modified retrospective method. Consistent with the modified retrospective adoption method, our results of operations for periods prior to our adoption of ASC 606 remain unchanged and are presented in accordance with ASC Topic 605, "Revenue Recognition" (“ASC 605”).

In 2018, our total revenues under ASC 606 were $307.4 million, whereas total revenues under ASC 605 would have been $382.1 million. In 2018, our recurring revenues, consisting of current patent royalties and current technology solutions revenue, were $280.3 million under ASC 606, and would have been $365.0 million under ASC 605. Total revenues in 2017 under ASC 605 were $532.9 million, which included $370.0 million of recurring revenues. Additional information about our revenues, the impacts of our adoption of ASC 606, profits and assets, as well as additional financial data, is provided in the selected financial data in Part II, Item 6, and in the financial statements and accompanying Notes in Part II, Item 8, of this Form 10-K.

Our Strategy

Our objective is to continue to be a leading designer and developer of technology solutions and innovation for the mobile and consumer electronics industries and to monetize those solutions and innovations through a combination of licensing, sales and other revenue opportunities.

To execute our strategy, we intend to:

- Develop and source innovative technologies related to wireless and video. We intend to grow or maintain a leading position in advanced mobile technology, the Internet of Things (IoT), video processing and coding, and other related technology areas by leveraging our expertise to guide internal research and development capabilities, direct our efforts in partnering with leading inventors and industry players to source new technologies and pursue select acquisitions of technologies, businesses and/or companies.

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- Establish and grow our patent-based revenue. We intend to grow our licensing revenue base by adding licensees, expanding into adjacent and new technology areas that align with our intellectual property position and leveraging the continued growth of the overall mobile technology market. Those licensing efforts can be self-driven or executed in conjunction with licensing partnerships, trusts and other efforts, and may involve the vigorous defense of our intellectual property through litigation and other means. We also believe that our ongoing research efforts and associated patenting activities enable us to sell patent assets that are not vital to our core licensing programs, as well as to execute patent swaps that can strengthen our overall portfolio.
- Maintain a collaborative relationship with key industry players and worldwide standards bodies. We intend to continue contributing to the ongoing process of defining mobile and video standards and other industry-wide efforts and incorporating our inventions into those technology areas. Those efforts, and the knowledge gained through them, support internal development efforts and also help guide technology and intellectual property sourcing through partners and other external sources.
- Pursue commercial opportunities for our advanced platforms and solutions. As part of our ongoing research and development efforts, InterDigital often builds out entire functioning platforms in various technology areas. We seek to bring those technologies, as well as other technologies we may develop or acquire, to market through various methods including technology licensing, stand-alone commercial initiatives, joint ventures and partnerships.

Technology Research and Development

InterDigital pursues a diversified approach to sourcing the innovations that underpin our business. That approach incorporates internally driven research and development efforts by InterDigital Labs, a research collaboration with Technicolor SA’s Research and Innovation unit as part of the Technicolor Acquisition, and select acquisitions of technology innovations, businesses and/or companies. Our efforts are guided by our vision of the future of technology, Creating the Living Network™, which is articulated around the variables of content, context and connectivity, and how the interplay of these elements drives future technology capabilities and needs.

As of December 31, 2018, our patent portfolio consisted of approximately 4,400 U.S. patents (approximately 400 of which were issued in 2018) and approximately 20,400 non-U.S. patents (approximately 2,100 of which were issued in 2018). As of the same date, we also had numerous patent applications pending worldwide, with approximately 1,700 applications pending in the United States and approximately 7,200 pending non-U.S. applications. The patents and applications comprising our portfolio relate to a broad range of technologies, including digital wireless radiotelephony (including, without limitation, 3G, 4G and 5G technologies) and video coding. Issued patents expire at differing times ranging from 2019 through 2037. We operate ten research and development facilities in five countries: Conshohocken, Pennsylvania, USA; Buffalo and Melville, New York, USA; Rockville, Maryland, USA; San Diego, California, USA; Princeton, New Jersey, USA; Montreal, Quebec, Canada; London, England, United Kingdom; Berlin, Germany; and Seoul, South Korea.

InterDigital Labs

As an early and ongoing participant in the digital wireless market, InterDigital developed pioneering solutions for the primary cellular air interface technologies in use today, TDMA and CDMA. That early involvement, our continued development of those advanced digital wireless technologies and innovations in OFDM/OFDMA and MIMO technologies have enabled us to create our significant worldwide portfolio of patents. In addition, InterDigital was among the first companies to participate in standardization and platform development efforts related to Machine-to-Machine (M2M) communications and IoT technology. In conjunction with our participation in certain standards bodies, we have filed declarations stating that we have patents that we believe are or may be essential or may become essential to cellular and other mobile industry standards and that, with respect to our essential patents, we are prepared to grant licenses on fair, reasonable and non-discriminatory terms or similar terms consistent with the requirements of the respective standards organizations.

Our capabilities in the development of advanced mobile technologies are based on the efforts of a highly specialized engineering team, leveraging leading-edge equipment and software platforms. As of December 31, 2018, InterDigital employed approximately 185 engineers, approximately 80% of whom hold advanced degrees (including 65 doctorate degrees). Over the last three years, investment in development has ranged from $69.7 million to $75.7 million, and the largest portion of this expense has been personnel costs. Additional information about our development expenses

is provided in the results of operations, under the heading "Operating Expenses," in Part II, Item 7, of this Form 10-K. Our current research efforts are focused on a variety of areas related to mobile technology and devices, including cellular wireless technology, Internet of Things ("IoT") technology, advanced video coding and transmission, and advanced sensor and sensor fusion technology.

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Cellular Wireless Technology

We have a long history of developing cellular technologies, including those related to CDMA and TDMA and, more recently, OFDM/OFDMA and MIMO. A number of our inventions are being used in all 2G, 3G and 4G wireless networks and mobile terminal devices. We led the industry in establishing TDMA-based TIA/EIA/IS-54 as a U.S. digital wireless standard in the 1980s as well as innovative CDMA and OFDM/OFDMA technology solutions and, today, we hold a significant worldwide portfolio of patents and patent applications for these technologies. Similar to our TDMA inventions, we believe that a number of our CDMA and OFDM/OFDMA inventions are, may be or may become essential to the implementation of CDMA and OFDM/OFDMA-based systems in use today.

We also continue to be engaged in development efforts to build and enhance our 3GPP technology portfolio in areas including 5G NR, LTE-Advanced, and cellular IoT. Some of our inventions include or relate to MIMO technologies for reducing interference and increasing data rates; power control; hybrid-ARQ for fast error correction; control channel structures for efficient signaling; multi-carrier operation; vehicular-centric communications (V2X); millimeter wave communications; network slicing; core network procedures, and other areas. We also continue to develop additional technologies in response to existing or perceived challenges of connected devices in the expanding terminal markets. These include technologies for automobiles, wearables, smart homes, drones, and other connected consumer electronic products. We are developing solutions that enable connectivity in both licensed and unlicensed spectrum, and across a large range of frequencies up to the millimeter wave bands.

Our strong wireless network background includes engineering and corporate development activities that focus on solutions that apply to 3GPP and other wireless market segments. Segments outside of 3GPP primarily fall within the scope of the IEEE 802, IETF and ETSI standards. We continue to grow a portfolio of technology related to Wi-Fi, Internet Standards, and Edge Computing, that includes, for example, improvements to the IEEE 802.11 PHY and MAC to increase peak data rates (802.11ax, 802.11ay), integrated access and backhaul, and terminal mobility for edge and fog computing services.

Video Encoding and Transmission Technology

An important and growing segment of wireless traffic is devoted to video streaming, and InterDigital has been active for a number of years in developing advanced technologies that address the challenges of video as it relates to mobile. Specifically, in the area of video research and standards, we have been actively engaged in video standards development work in the ISO/IEC Moving Picture Expert Group (MPEG), the ITU-T Video Coding Expert Group (VCEG), the Joint Collaborative Team on Video Coding (JCT-VC) and the Joint Video Expert Team (JVET). Those efforts have focused on H.265/HEVC versions 1 to 4 and MPEG DASH, as well as FVC/H.266 and the MPEG Immersive (MPEG-I) standards suite going forward. In addition, as part of the Technicolor Acquisition, InterDigital benefits from a research agreement with Technicolor’s Research and Innovation unit pursuant to which InterDigital owns the patents produced through Technicolor’s ongoing research in defined project areas, including FVC/H.266. If our previously announced acquisition of Technicolor's Research and Innovation unit closes, this research agreement would be terminated.

IoT Technology

In the field of IoT applications, we are developing technologies to enable seamless interconnection for multiple access types (cellular, WLAN, LPWA) and IoT service frameworks that can be managed by a customer and leveraged by a diverse set of vertical applications. These technologies build on our expertise in developing platforms and contributing technologies towards the advancement of global M2M and IoT standards. As part of, and in addition to, InterDigital’s standards-focused development, we have two solutions that are being made available commercially.

In October 2017, we launched our Smart City-focused Chordant™ business. The Chordant platform, which was originally introduced in 2015 as the oneMPOWER™ platform, enables interoperability and scalability focusing specifically on the Smart Cities industry segment. This secure and scalable horizontal platform helps businesses launch and manage IoT data and applications, and features a comprehensive suite of application enabling services that span connectivity, device, data, security, and transaction management. The Chordant platform is compliant with oneM2M, the global standard for horizontal IoT platforms, and is designed for interoperability across diverse vertical markets, networks, and devices. The solution is based on an open standard with a long-term features roadmap, which interworks with many existing industry protocols and alliances. In February 2018, we announced the launch in the

U.K of the oneTRANSPORT™ data marketplace, which operates on the Chordant platform. This commercial service provides a common interface to multiple service providers, allowing public authorities to control and monetize, and companies to access, IoT data in a simpler fashion via a real-time, low-latency service-oriented architecture. In December 2018, InterDigital announced that an affiliate of Sony Corporation of America ("Sony") had invested in Chordant as part of entering into a new patent license agreement.

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Other Technology Areas and Sources

Because mobile technology today and into the future encompasses a very broad range of areas, we are also developing a range of technologies in the areas of security and analytics, sensor technologies, as well as other areas. Some of those efforts are related to technology standards.

In addition, to supplement our own development efforts, the Company pursues an external technology sourcing model based around partnerships with leading research organizations and consortia. Those efforts include a range of universities conducting sponsored research, agreements with various research institutions, and membership and collaborative research in various initiatives such as Platforms for Advanced Wireless Research (PAWR), NYU Wireless, 5Tonic and Bristol is Open.

Our Revenue Sources

Patent-Based Revenue

We believe that companies making, importing, using or selling products compliant with the standards covered by our patent portfolio, including all manufacturers of mobile handsets, tablets and other devices, require a license under our patents and will require licenses under patents that may issue from our pending patent applications. We have successfully entered into license agreements with many of the leading mobile communications companies globally, including Apple Inc. (“Apple”), HTC Corporation, Kyocera Corporation (“Kyocera”), LG Electronics, Inc. (“LG”), Samsung Electronics Co., Ltd. (“Samsung”) and Sony, among others. We also receive revenue under certain license agreements that we assumed as part of the Technicolor Acquisition.

Most of our patent license agreements are structured on a royalty-bearing basis, while others are structured on a paid-up basis or a combination thereof. Upon entering into a new patent license agreement, the licensee typically agrees to pay consideration for sales made prior to the effective date of the license agreement (i.e., non-current patent royalties) and also agrees to pay royalties or license fees on licensed products sold during the term of the agreement. We expect that, for the most part, new license agreements will follow this model. Almost all of our patent license agreements provide for the payment of royalties based on sales of licensed products designed to operate in accordance with particular standards (convenience-based licenses), as opposed to the payment of royalties if the manufacture, sale or use of the licensed product infringes one of our patents (infringement-based licenses).

Some of our patent licenses are paid up, requiring no additional payments relating to designated sales under agreed upon conditions. Those conditions can include paid-up licenses for a period of time (fixed-fee agreements), for a class of products, for a number of products sold, under certain patents or patent claims, for sales in certain countries or a combination thereof. Licenses become paid-up based on the payment of fixed amounts or after the payment of royalties for a term.

Some of our patent license agreements provide for the non-refundable prepayment of royalties that are usually made in exchange for prepayment discounts. As the licensee reports sales of covered products, the royalties are calculated and either applied against any prepayment or become payable in cash or other consideration. Additionally, royalties on sales of licensed products under the license agreement become payable or applied against prepayments based on the royalty formula applicable to the particular license agreement. These formulas include flat dollar rates per unit, a percentage of sales, a percentage of sales with a per-unit cap and other similar measures. The formulas can also vary by other factors, including territory, covered standards, quantity and dates sold. Our license agreements typically contain provisions that give us the right to audit our licensees' books and records to ensure compliance with the licensees' reporting and payment obligations under those agreements. From time to time, these audits reveal underreporting or underpayments under the applicable agreements. In such cases, we seek payment for the amount owed and enter into negotiations with the licensee to resolve the discrepancy.

For a discussion of our revenue recognition policies with respect to patent license agreements, see “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations - Overview - Critical Accounting Policies and Estimates - Revenue Recognition - Patent License Agreements.”

In addition, in 2013, InterDigital formed the Signal Trust for Wireless Innovation (the “Signal Trust”). The goal of the Signal Trust is to monetize a large patent portfolio related to cellular infrastructure. More than 500 patents and patent applications were transferred from InterDigital to the Signal Trust, focusing primarily on 3G and LTE technologies and developed by InterDigital's engineers and researchers over more than a decade. A number of these innovations

have been contributed to the worldwide standards process, resulting in a portfolio that includes patents for pioneering inventions that we believe are used pervasively in the cellular wireless industry. InterDigital is the primary beneficiary of the Signal Trust. The distributions from the Signal Trust will support continued research related to cellular wireless technologies. A small portion of the proceeds from the Signal Trust will be used to fund, through the Signal Foundation for Wireless Innovation, scholarly analysis of intellectual property rights and the technological, commercial and creative innovations they facilitate.

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In third quarter 2016, InterDigital joined Avanci, the industry's first marketplace for the licensing of cellular standards-essential technology for the IoT. The licensing platform brings together some of InterDigital's peers in standards-essential technology leadership, and makes 2G, 3G and 4G standards-essential patents available to IoT players in specific product segments with one flat-rate license. The Avanci licensing programs in specific product segments for the IoT industry will provide access to the entire applicable standards-essential wireless patent portfolios held by all of the platform participants, as well as any additions to their portfolios during the term of the license. In December 2017, Avanci announced that it had signed a patent license agreement with BMW Group.

We also pursue, on occasion, targeted sales of portions of our patent portfolio. This strategy is based on the expectation that our portfolio and continued research efforts extend well beyond the requirements for a successful licensing program. In addition, the strategy leverages the desire from new entrants in the mobile technology space to build strong intellectual property positions to support their businesses.

Other Potential Revenue Opportunities

Our strong technology expertise and research and development team also form the basis for other potential revenue opportunities, focused around areas such as engineering services, research joint ventures and the continued development, commercialization and licensing of research and development projects that have progressed to a pre-commercial or commercial phase. We also currently recognize revenue from the licensing of technology that has been developed by our engineering teams and is integrated into other companies' technology products.

In all of its technology areas, InterDigital works to incubate and commercialize market-ready technologies. These include technologies that were developed as part of our standards development efforts, as well as technologies developed outside the scope of those efforts. Those commercial efforts sometimes include the establishment of a separate commercial initiative focused on the specific opportunity. Although these initiatives are in their early stages, they are potential revenue opportunities for the Company.

In 2012, we formed of a joint venture with Sony called Convida Wireless. The joint venture combined InterDigital's advanced M2M research capabilities with Sony's consumer electronics expertise with the purpose of driving new research in IoT communications and other connectivity areas. This joint venture was renewed in 2015 with its focus expanded to include advanced research and development into 5G and future wireless technologies, and renewed again in 2018 with its focus sharpened on 5G, including IoT and infrastructure research.

Overview of Wireless Communications and Consumer Electronics Industries

The wireless communications industry continues to experience rapid growth worldwide, as well as an expansion of device types entering the market. In addition, new markets are emerging related to wireless connectivity. IoT is an important new market in the technology field, which is expected to result in a significant increase in the number of connections, and unlock new business capabilities. IoT is currently in its earliest stages, and estimates vary broadly as far as how many connections it will yield, but by some estimates there could be as many as 120 billion connected devices by 2030, a significant portion of which will be comprised of 3G, 4G and 5G cellular IoT devices.

To achieve economies of scale and support interoperability among different participants, products for the wireless industry have typically been designed to operate in accordance with certain standards. Wireless communications standards are formal guidelines for engineers, designers, manufacturers and service providers that regulate and define the use of the radio frequency spectrum in conjunction with providing detailed specifications for wireless communications products. A primary goal of the standards is to ensure interoperability of products marketed by multiple companies. A large number of international and regional wireless Standards Development Organizations ("SDOs"), including the ITU, ETSI, TIA (USA), IEEE, ATIS (USA), TTA (Korea), ARIB (Japan) and ANSI, have responsibility for the development and administration of wireless communications standards. New standards are typically adopted with each new generation of products, are often compatible with previous generations and are defined to ensure equipment interoperability and regulatory compliance.

With the completion of the Technicolor Acquisition and the integration of that portfolio into our overall licensing efforts, InterDigital now expects to expand its business into the broader consumer electronics industry. According to data from ABI Research, more than 2 billion devices in the video, audio and IoT/other technology areas were shipped in 2017. Those devices include TV displays, computer displays, set-top boxes, gaming consoles, wireless assistants and headphones, wearables, smart home devices and other types of consumer electronic devices that implement video

or wireless technologies, or a combination of both. Some of those technologies are standards-based, such as Wi-Fi and other wireless technologies, various video coding standards and various broadcast standards.

Standards have evolved in response to consumer demand for services and expanded capabilities of mobile devices and other consumer electronics devices. For instance, cellular standards have evolved from voice-oriented services to multimedia

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services that exploit the higher speeds offered by newer technologies, such as LTE. The wireless communications industry has also made significant advances in non-cellular wireless technologies.

SDOs typically ask participating companies to declare formally whether they believe they hold patents or patent applications essential to a particular standard and whether they are willing to license those patents on either a royalty-bearing basis on fair, reasonable and nondiscriminatory terms or on a royalty-free basis. To manufacture, have made, sell, offer to sell or use such products on a non-infringing basis, a manufacturer or other entity doing so must first obtain a license from the holder of essential patent rights. The SDOs do not have enforcement authority against entities that fail to obtain required licenses, nor do they have the ability to protect the intellectual property rights of holders of essential patents.

InterDigital often publicly characterizes aspects of its business, including license agreements and development projects, as pertaining to broad mobile industry standards such as, for example, 3G, 4G, 5G and Wi-Fi. In doing this, we generally rely on the positions of the applicable standards-setting organizations in defining the relevant standards. However, the definitions may evolve or change over time, including after we have characterized certain transactions.

Business Activities

2018 Patent Licensing Activity

During first quarter 2018 we entered into a multi-year, worldwide, non-exclusive, royalty-bearing patent license agreement with Kyocera Corporation. The agreement covers sales by Kyocera Corporation and its affiliates of terminal unit products designed to operate in accordance with WCDMA and LTE standards, providing Kyocera expanded coverage for products in addition to those covered under their existing license agreement with InterDigital.

Also during first quarter 2018, the Signal Trust, established by the Company in 2013, signed a patent license agreement with a provider of telecommunications infrastructure equipment. The Signal Trust holds a patent portfolio related to cellular infrastructure, and it is a variable interest entity. Based on the terms of the trust agreement, we previously determined that we are the primary beneficiary of the Signal Trust for accounting purposes and, therefore, must consolidate the Signal Trust.

During second quarter 2018, we entered into a multi-year, worldwide, non-exclusive, royalty-bearing patent license agreement with Fujitsu Connected Technologies Limited (“FCNT”). The agreement covers the sale of FCNT’s 2G, 3G and 4G terminal unit products, including LTE and LTE-Advanced products.

Also during second quarter 2018, we entered into a multi-year, world-wide, non-exclusive, royalty bearing patent license agreement with a US-headquartered company. The agreement covers sales by the US company of 802.11 functionality within certain of its products.

During fourth quarter 2018, we entered into a multi-year, worldwide, non-exclusive patent license agreement with Sony (the “Sony PLA”), a global leader and technology innovator in consumer electronics, mobile communications and home appliances. In addition, we renewed our joint venture with Sony, Convida Wireless, and sharpened its focus on 5G, including IoT and infrastructure research. The new Sony PLA covers the sale by Sony of covered products for the three-year period that commenced on December 1, 2018.

Customers Generating Revenues Exceeding 10% of Total 2018 Revenues

Apple, Samsung and LG Electronics comprised approximately 36%, 25% and 10% of our total 2018 revenues, respectively.

In 2016, we entered into a multi-year, royalty-bearing, worldwide and non-exclusive patent license agreement with Apple (the “Apple PLA”). The agreement sets forth terms covering the sale by Apple of its products and services, including, but not limited to, its 3G, 4G and future generation cellular and wireless-enabled products. The Apple PLA gives Apple the right to terminate certain rights and obligations under the license for the period after September 30, 2021, but has the potential to provide a license to Apple for a total of up to six years. During 2018, we recognized a total of $111.7 million of revenue associated with the Apple PLA under ASC 606.

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In 2014, we entered into a patent license agreement with Samsung (the “Samsung PLA”). The royalty-bearing license agreement sets forth terms covering the sale by Samsung of 3G, 4G and certain future generation wireless products. The Samsung PLA provided Samsung the right to terminate certain rights and obligations under the license for the period after 2017 but had the potential to provide a license to Samsung for a total of ten years, including 2013. Samsung did not elect to terminate such rights and obligations, and the period for such election has expired. Accordingly, the term of our patent license agreement with Samsung ends on December 31, 2022. During 2018, we recognized a total of $78.3 million of revenue associated with the Samsung PLA under ASC 606.

In 2017, we entered into a multi-year, worldwide, non-exclusive patent license agreement with LG (the “LG PLA”), a global leader and technology innovator in consumer electronics, mobile communications and home appliances. The LG PLA covers the 3G, 4G and 5G terminal unit products of LG and its affiliates and sets forth a royalty of cash payments to InterDigital as well as a process for the transfer of patents from LG to InterDigital. The deal also committed the parties to explore cooperation for projects related to the research and development of video and sensor technology for connected and autonomous vehicles. During 2018, we recognized a total of $31.8 million of revenue associated with the LG PLA under ASC 606.

Patent Infringement and Declaratory Judgment Proceedings

From time to time, if we believe a party is required to license our patents in order to manufacture, use and/or sell certain products and such party refuses to do so, we may agree with such party to have royalty rates, or other terms, set by third party adjudicators (such as arbitrators) or, in certain circumstances, we may institute legal action against them. This legal action has typically taken the form of a patent infringement lawsuit or an administrative proceeding such as a Section 337 proceeding before the United States International Trade Commission (“USITC” or the "Commission"). In a patent infringement lawsuit, we would typically seek damages for past infringement and an injunction against future infringement. In a USITC proceeding, we would seek an exclusion order to bar infringing goods from entry into the United States, as well as a cease and desist order to bar further sales of infringing goods that have already been imported into the United States. Parties may bring administrative and/or judicial challenges to the validity, enforceability, essentiality and/or applicability of our patents to their products. Parties may also allege that our efforts to enter into a license with that party do not comply with any obligations we may have in connection with our participation in standards-setting organizations, and therefore that we are not entitled to the relief that we seek. For example, a party may allege that we have not complied with an obligation to offer a license to that party on fair, reasonable and non-discriminatory terms and conditions, and may also file antitrust claims or regulatory complaints on that or other bases, and may seek damages or other relief based on such claims. In addition, a party might file a declaratory judgment action to seek a court's declaration that our patents are invalid, unenforceable, not infringed by the other party's products or are not essential. Our response to such a declaratory judgment action may include claims of infringement. When we include claims of infringement in a patent infringement lawsuit, a favorable ruling for the Company can result in the payment of damages for past patent royalties, the setting of a royalty for future sales or issuance by the court of an injunction enjoining the infringer from manufacturing, using and/or selling the infringing product.

Contractual Arbitration Proceedings

We and our licensees, in the normal course of business, may have disagreements as to the rights and obligations of the parties under applicable agreements. For example, we could have a disagreement with a licensee as to the amount of reported sales and royalties. Our patent license agreements typically provide for audit rights as well as private arbitration as the mechanism for resolving disputes, and we may attempt to resolve such disputes in arbitration. In arbitration, licensees may seek to assert various claims, defenses, or counterclaims, such as claims based on waiver, promissory estoppel, breach of contract, fraudulent inducement to contract, antitrust, and unfair competition. Arbitration proceedings can be resolved through an award rendered by the arbitrators or by settlement between the parties. Parties to arbitration might have the right to have the award reviewed in a court of competent jurisdiction. However, based on public policy favoring the use of arbitration, it is generally difficult to have arbitration awards vacated or modified. The party securing an arbitration award may seek to have that award confirmed as a judgment through an enforcement proceeding. The purpose of such a proceeding is to secure a judgment that can be used for, if need be, seizing assets of the other party.

In addition, arbitration may be a particularly effective means for resolving disputes with prospective licensees concerning the appropriate fair, reasonable and non-discriminatory ("FRAND") terms and conditions for license agreements that include standards-essential patents ("SEPs"), particularly where negotiations have otherwise reached an impasse. Binding arbitration to resolve the terms and conditions of a worldwide FRAND license to our relevant portfolio of SEPs is an efficient and cost-effective mechanism, as it allows the parties to avoid piecemeal litigation in multiple jurisdictions and ensures that an enforceable patent license agreement that is consistent with FRAND commitments will be in place at the end of the arbitration process.

Competition

With respect to our technology development activities and resulting commercialization efforts, we face competition from companies, including in-house development teams at other wireless device companies and semiconductor companies and wireless operators, developing other and similar technologies that are competitive with our products and solutions that we may market or set forth into the standards-setting arena.

Due to the exclusionary nature of patent rights, we do not compete, in a traditional sense, with other patent holders for patent licensing relationships or sale transactions. Other patent holders do not have the same rights to the inventions and

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technologies encompassed by our patent portfolio. In any device or piece of equipment that contains intellectual property, the manufacturer may need to obtain licenses from multiple holders of intellectual property. In licensing our patent portfolio, we compete with other patent holders for a share of the royalties that certain licensees may argue to be the total royalty that is supported by a certain product or products, which may face practical limitations. We believe that licenses under a number of our patents are required to manufacture and sell 3G, 4G and other wireless products, as well as other consumer electronics devices. However, numerous companies also claim that they hold patents that are or may be essential or may become essential to standards-based technology deployed on wireless products and other consumer electronics devices. To the extent that multiple parties all seek royalties on the same product, the manufacturers could claim to have difficulty in meeting the financial requirements of each patent holder. In the past, certain manufacturers have sought antitrust exemptions to act collectively on a voluntary basis. In addition, certain manufacturers have sought to limit aggregate licensing fees or rates for essential patents. Similarly, potential purchasers of our patents often amass patent portfolios for defensive and/or cross-licensing purposes and could choose to acquire patent assets within the same general technology space from other patent holders.

Employees

As of December 31, 2018, we had approximately 390 employees, including approximately 50 employees in France who were subject to collective bargaining arrangements. We consider our employee relations to be good.

Geographic Concentrations

See Note 4, "Geographic/Customer Concentration," in the Notes to Condensed Consolidated Financial Statements included in Part II, Item 8, of this Form 10-K for financial information about geographic areas for the last three years.

Corporate Information

The ultimate predecessor company of InterDigital, Inc. was incorporated in 1972 under the laws of the Commonwealth of Pennsylvania and conducted its initial public offering in November 1981. Our corporate headquarters and administrative offices are located in Wilmington, Delaware, USA. We have research and technology development centers in the following locations: Conshohocken, Pennsylvania, USA; Buffalo and Melville, New York, USA; Rockville, Maryland, USA; San Diego, California, USA; Montreal, Quebec, Canada; London, England, United Kingdom; Berlin, Germany; and Seoul, South Korea. We also have administrative offices in Washington, District of Columbia, USA; San Francisco, California, USA; Indianapolis, Indiana, USA; Princeton, New Jersey, USA; New York City, New York, USA; Brussels, Belgium; Paris and Rennes, France; and Shanghai, China.

Our Internet address is www.interdigital.com, where, in the “Investors” section, we make available, free of charge, our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, certain other reports and filings required to be filed under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and all amendments to those reports or filings as soon as reasonably practicable after such material is electronically filed with or furnished to the United States Securities and Exchange Commission. The information contained on or connected to our website is not incorporated by reference into this Form 10-K.

Item 1A. RISK FACTORS.

We face a variety of risks that may affect our business, financial condition, operating results, the trading price of our common stock, or any combination thereof. You should carefully consider the following information and the other information in this Form 10-K in evaluating our business and prospects and before making an investment decision with respect to our common stock. If any of these risks were to occur, our business, financial condition, results of operations or prospects could be materially and adversely affected. In such an event, the market price of our common stock could decline and you could lose all or part of your investment. The risks and uncertainties we describe below are not the only ones facing us. Additional risks not presently known to us or that we currently deem immaterial may also affect our business.

Risks Related to Our Business

Our plans to license handset manufacturers in China may be adversely affected by a deterioration in United States-China trade and geopolitical relations, our customers facing economic uncertainty there or our failure to establish a positive reputation in China, which could materially adversely affect our long-term business, financial condition and operating results.

Companies headquartered in China currently comprise a substantial portion of the handset manufacturers that remain unlicensed to our patent portfolio. Our ability to license such manufacturers is, among other things, affected by the macroeconomic and geopolitical climate, as well as our business relationships and perceived reputation in China. The U.S. and Chinese governments are currently engaged in trade negotiations, and the U.S. State Department issued a travel advisory in

January 2019 that advises U.S. citizens to exercise increased caution in China due to arbitrary enforcement of local laws. This travel advisory and other security concerns are restricting our ability to conduct in-person negotiations with prospective Chinese licensees. If the U.S.-China trade dispute escalates or relations between the United States and China further deteriorate, these conditions could adversely affect our ability to license our patent portfolio to Chinese handset manufacturers. Our ability to license such manufacturers could also be affected by economic uncertainty, particularly in the handset market, in China or by our failure to establish a positive reputation and relationships in China. The occurrence of any of these events could have an adverse effect on our ability to enter into license agreements with Chinese handset manufacturers, which, in turn, could cause our long-term business, financial condition and operating results to be materially adversely affected.

Potential patent and litigation reform legislation, potential USPTO and international patent rule changes, potential legislation affecting mechanisms for patent enforcement and available remedies, and potential changes to the intellectual property rights ("IPR") policies of worldwide standards bodies, as well as rulings in legal proceedings, may affect our investments in research and development and our strategies for patent prosecution, licensing and enforcement and could have a material adverse effect on our licensing business as well as our business as a whole.

Potential changes to certain U.S. and international patent laws, rules and regulations may occur in the future, some or all of which may affect our research and development investments, patent prosecution costs, the scope of future patent coverage we secure, the number of forums in which we can seek to enforce our patents, the remedies that we may be entitled to in patent litigation, and attorneys' fees or other remedies that could be sought against us, and may require us to reevaluate and modify our research and development activities and patent prosecution, licensing and enforcement strategies. Similarly, legislation designed to reduce the jurisdiction and remedial authority of the United States International Trade Commission (the "USITC") has periodically been introduced in Congress.

Any potential changes in the law, the IPR policies of standards bodies or other developments that reduce the number of forums available or the type of relief available in such forums (such as injunctive relief), restrict permissible licensing practices (such as our ability to license on a worldwide portfolio basis) or that otherwise cause us to seek alternative forums (such as arbitration or state court), would make it more difficult for us to enforce our patents, whether in adversarial proceedings or in negotiations. Because we have historically depended on the availability of certain forms of legal process to enforce our patents and obtain fair and adequate compensation for our investments in research and development and the unauthorized use of our intellectual property, developments that undermine our ability to do so could have a negative impact on future licensing efforts.

Rulings in our legal proceedings as well as those of third parties may affect our strategies for patent prosecution, licensing and enforcement. For example, in recent years, the USITC and U.S. courts, including the U.S. Supreme Court and the U.S. Court of Appeals for the Federal Circuit, have taken some actions that have been viewed as unfavorable to patentees, including the Company. Decisions that occur in U.S. or in international forums may change the law applicable to various patent law issues, such as, for example, patentability, validity, claim construction, patent exhaustion, patent misuse, permissible licensing practices, available forums, and remedies such as damages and injunctive relief, in ways that are detrimental to the abilities of patentees to enforce patents and obtain suitable relief. We continue to monitor and evaluate our strategies for prosecution, licensing and enforcement with regard to these developments; however, any resulting change in such strategies may have an adverse impact on our business and financial condition.

Royalty rates, or other terms, under our patent license agreements could be subject to determination through arbitration or other third-party adjudications or regulatory or court proceedings, and arbitrators, judges or other third-party adjudicators or regulators could determine that our patent royalty rates should be at levels lower than our agreed or historical rates or otherwise make determinations resulting in less favorable terms and conditions under our patent license agreements.

Historically, the terms of our patent license agreements, including our royalty rates, have been reached through arms-length bilateral negotiations with our licensees. We could agree, as we did with Huawei pursuant to our December 2013 settlement agreement, to have royalty rates, or other terms, set by third party adjudicators (such as arbitrators) and it is also possible that courts or regulators could decide to set or otherwise determine the FRAND consistency of such terms or the manner in which such terms are determined, including by determining a worldwide

royalty rate for our standards-essential patents. Changes to or clarifications of our obligations to be prepared to offer licenses to standards-essential patents on FRAND terms and conditions could require such terms, including our royalty rates, to be determined through third party adjudications. Finally, certain of our current and prospective licensees have instigated, and others could in the future instigate, legal proceedings or regulatory proceedings requesting third party adjudicators or regulators, such as the Shenzhen Intermediate People’s Court, China's National Development and Reform Commission and Taiwan's Fair Trade Commission, to set FRAND terms and conditions for, or determine the FRAND-consistency of current terms and conditions in, our patent license agreements, and which could result in such third party adjudicators or regulators determining a worldwide royalty rate for our standards-essential patents. To the extent that our patent royalty rates for our patent license agreements are determined through

arbitration or other third party adjudications or regulatory or court proceedings rather than through bilateral negotiations, because such proceedings are inherently unpredictable and uncertain and there are currently few precedents for such determinations, it is possible that royalty rates may be lower than our historical rates, and this could also have a negative impact on royalties we are able to obtain from future licensees, which may have an adverse effect on our revenue and cash flow. In addition, to the extent that other terms and conditions for our patent license agreements are determined through such means, such terms and conditions could be less favorable than our historical terms and conditions, which may have an adverse effect on our licensing business.

Due to the nature of our business, we could continue to be involved in a number of costly litigation, arbitration and administrative proceedings to enforce or defend our intellectual property rights and to defend our licensing practices.

While some companies seek licenses before they commence manufacturing and/or selling devices that use our patented inventions, most do not. Consequently, we approach companies and seek to establish license agreements for using our inventions. We expend significant time and effort identifying users and potential users of our inventions and negotiating license agreements with companies that may be reluctant to take licenses. However, if we believe that a third party is required to take a license to our patents in order to manufacture, sell, offer for sale, import or use products, we have in the past commenced, and may in the future, commence legal or administrative action against the third party if they refuse to enter into a license agreement with us. In turn, we have faced, and could continue to face, counterclaims and other legal proceedings that challenge the essential nature of our patents, or that claim that our patents are invalid, unenforceable or not infringed. Litigation adversaries may allege that we have not complied with certain commitments to standards-setting organizations and therefore that we are not entitled to the relief that we seek. For example, a party may allege that we have not complied with an obligation to offer a license to a party on FRAND terms and conditions, and may also file antitrust claims, unfair competition claims or regulatory complaints on that or other bases, and may seek damages and other relief based on such claims. Litigation adversaries have also filed against us, and other third parties may in the future file, validity challenges such as inter partes proceedings in the USPTO, which can lead to delays of our patent infringement actions as well as potential findings of invalidity. Litigation may be also required to enforce our intellectual property rights, protect our trade secrets, enforce patent license and confidentiality agreements or determine the validity, enforceability and scope of proprietary rights of others.

Third parties could commence litigation against us seeking to invalidate our patents or obtain a determination that our patents are not infringed, are not essential, are invalid or are unenforceable. In addition, current and prospective licensees have initiated proceedings against us claiming, and others in the future may claim, that we have not complied with our FRAND licensing commitments and/or engaged in anticompetitive or unfair licensing activities. The cost of enforcing and defending our intellectual property and of defending our licensing practices has been and may continue to be significant. As a result, we could be subject to significant legal fees and costs, including in certain jurisdictions the costs and fees of opposing counsel if we are unsuccessful. In addition, litigation, arbitration and administrative proceedings require significant key employee involvement for significant periods of time, which could divert these employees from other business activities.

Setbacks in defending our patent licensing practices could cause our cash flow and revenue to decline and could have an adverse effect on our licensing business.

Adverse decisions in litigation or regulatory actions relating to our licensing practices, including, but not limited to, findings that we have not complied with our FRAND commitments and/or engaged in anticompetitive or unfair licensing activities or that any of our license agreements are void or unenforceable, could have an adverse impact on our cash flow and revenue. Regulatory bodies may assess fines in the event of adverse findings, and as part of court or arbitration proceedings, a judgment could require us to pay damages (including the possibility of treble damages for antitrust claims). In addition, to the extent that legal decisions find patent license agreements to be void or unenforceable in whole or in part, that could lead to a decrease in the revenue associated with and cash flow generated by such agreements, and, depending on the damages requested, could lead to the refund of certain payments already made. Finally, adverse legal decisions related to our licensing practices could have an adverse effect on our ability to enter into license agreements, which, in turn, could cause our cash flow and revenue to decline.

Royalty rates could decrease for future license agreements due to downward product pricing pressures and competition over patent royalties.

Royalty payments to us under future license agreements could be lower than anticipated. Certain licensees and others in the wireless and consumer electronics industries, individually and collectively, are demanding that royalty rates for patents be lower than historic royalty rates and/or that such rates should be applied to royalty bases smaller than the selling price of an end product (such as the “smallest salable patent practicing unit”). There is also increasing downward pricing pressure on

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certain wireless products, including handsets, and other consumer electronics devices that we believe implement our patented inventions, and some of our royalty rates are tied to the pricing of these devices. In addition, a number of other companies also claim to hold patents that are essential with respect to products we aim to license. Demands by certain licensees to reduce royalties due to pricing pressure or the number of patent holders seeking royalties on these technologies, could result in a decrease in the royalty rates we receive for use of our patented inventions, thereby decreasing future revenue and cash flow.

Our plans to broaden our revenue opportunities through acquiring or developing technology in new or expanded areas, such as technologies in the consumer electronics and IoT spaces, and enhanced intellectual property sourcing and joint ventures, may not be successful and could materially adversely affect our long-term business, financial condition and operating results.

As part of our business strategy, we are seeking to broaden our revenue opportunities through targeted acquisitions, research partnerships, joint ventures and the continued development of new technologies, such as our binding offer to acquire Technicolor SA's Research & Innovation unit. Increasingly, our future growth in part depends on developing or acquiring technology in new or expanded areas that are used on cellular devices (such as video coding technologies) and adjacent industry segments outside of traditional cellular industries (such as other consumer electronics devices and the IoT, including the connected home and smart cities, automotive, mobile computing, mobile health and sensor technology), and on third parties incorporating our technology and solutions into device types used in these areas and industry segments. There is no guarantee that we will succeed in acquiring or developing technology and patents or partnering with inventors and research organizations to create new revenue opportunities and/or add new dimensions to our existing portfolio of intellectual property and potentially create new patent licensing programs. Also, our development activities may experience delays, which could reduce our opportunities for patent licensing or other avenues of revenue generation related to such development activities. In the event that any of these risks materialize, our long-term business, financial condition and operating results may be materially adversely affected.

Setbacks in defending and enforcing our patent rights could cause our revenue and cash flow to decline.

Some third parties have challenged, and we expect will continue to challenge, the infringement, validity and enforceability of certain of our patents. In some instances, certain of our patent claims could be substantially narrowed or declared invalid, unenforceable, not essential or not infringed. We cannot ensure that the validity and enforceability of our patents will be maintained or that our patents will be determined to be applicable to any particular product or standard. Moreover, third parties could attempt to circumvent certain of our patents through design changes. Any significant adverse finding as to the validity, infringement, enforceability or scope of our patents and/or any successful design-around of our patents could result in the loss of patent licensing revenue from existing licensees, through termination or modification of agreements or otherwise, and could substantially impair our ability to secure new patent licensing arrangements, either at all or on beneficial terms.

Our technologies may not become patented, adopted by wireless standards or widely deployed.

We invest significant resources in the development of advanced technology and related solutions. However, certain of our inventions that we believe will be employed in current and future products, including 4G, 5G and beyond, are the subject of patent applications where no patent has been issued to us yet by the relevant patent issuing authorities. There is no assurance that these applications will issue as patents, either at all or with claims that would be required by products in the market currently or in the future. Our investments may not be recoverable or may not result in meaningful revenue if a sufficient number of our technologies are not patented and adopted by the relevant standards or if products based on the technologies in which we invest are not widely deployed. Competing technologies could reduce the opportunities for the adoption or deployment of technologies we develop. In addition, it is possible that in certain technology areas, such as in the IoT space, the adoption of proprietary systems could compete with or replace standards-based technology. It is also possible in certain technology areas, such as video coding and the IoT, that open source solutions such as AV1 and OCF, respectively, could compete with or replace proprietary standards-based technology. If the technologies in which we invest do not become patented or are not adopted by the relevant standards, or are not adopted by and deployed in the mainstream markets, at all or at the rate or within time periods we expect, or in the case of open source solutions, do not infringe our technology, our business, financial condition and

operating results could be adversely affected.
Delays in renewing or an inability to renew existing license agreements could cause our revenue and cash flow to decline.
Many of our license agreements have fixed terms. Although we endeavor to renew license agreements with fixed terms prior to the expiration of the license agreements, due to various factors, including the technology and business needs and competitive positions of our licensees and, at times, reluctance on the part of our licensees to participate in renewal discussions, we may not be able to renegotiate the license agreements on acceptable terms before the expiration of the license agreement, on acceptable terms after the expiration of the license agreement, or at all. If there is a delay in renegotiating and renewing a license agreement prior to its expiration, there could be a gap in time during which we may be unable to recognize revenue

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from that licensee or we may be forced to renegotiate and renew the license agreement on terms that are more favorable to such licensee, and, as a result, our revenue and cash flow could be materially adversely affected. In addition, if we fail to renegotiate and renew our license agreements at all, we could lose existing licensees, and our revenue and cash flow could be materially adversely affected.

Increased scrutiny by antitrust authorities may affect our strategies for patent prosecution, licensing and enforcement and may increase our costs of doing business and/or lead to monetary fines, penalties or other remedies or sanctions.

Domestic and foreign antitrust authorities have increased their scrutiny of the use of standards-essential patents in the mobile wireless industry, including the enforcement of such patents against competitors and others. Such scrutiny has already resulted in enforcement actions against Qualcomm and could lead to additional investigations of, or enforcement actions against, the Company. Such inquiries and/or enforcement actions could impact the availability of injunctive and monetary relief, which may adversely affect our strategies for patent prosecution, licensing and enforcement and increase our costs of operation. Such inquiries and/or enforcement actions could also result in monetary fines, penalties or other remedies or sanctions that could adversely affect our business and financial condition.

Our commercialization, licensing and/or mergers and acquisitions ("M&A") activities could lead to patent exhaustion or implied license issues that could materially adversely affect our business.

The legal doctrines of patent exhaustion and implied license may be subject to different judicial interpretations. Our commercialization or licensing of certain technologies and/or our M&A activities could potentially lead to patent exhaustion or implied license issues that could adversely affect our patent licensing program(s) and limit our ability to derive licensing revenue from certain patents under such program(s). In the event of successful challenges by current or prospective licensees based on these doctrines that result in a material decrease to our patent licensing revenue, our financial condition and operating results may be materially adversely affected.

We may experience difficulties or delays integrating, and may not be able to realize all of the anticipated benefits from the integration of, the patent licensing business that we acquired from Technicolor in 2018 and, if consummated, the Research & Innovation unit of Technicolor with respect to which we made a binding offer to purchase (the "Technicolor business").

We may experience difficulties integrating the Technicolor business, or may fail to realize the anticipated benefits from our integration of the Technicolor business on a timely basis, or at all, for a variety of reasons, including the following:

- failure of the acquisitions to materially increase the value of our core handset licensing business by not increasing the royalty amount we would otherwise derive on each handset, not accelerating the pace of licensing, or not allowing us to avoid litigation to protect our intellectual property;
- unexpected costs and strain on our resources and potential distraction of management arising from our attempts to integrate the Technicolor business;
- difficulties integrating the patent portfolios and related portfolio management systems of the businesses, or migrating the portfolios to a new patent management system, and the risk that the patent assets could be negatively affected;
- failure to continue to develop and expand our portfolio of video technology patent assets;
- failure to develop a successful business plan and licensing program related to consumer electronics;
- difficulties integrating the personnel of the Technicolor business into our operations, organization, and human resources programs, and the risk that we could lose key employees;
- challenges associated with managing a geographically remote business;
- failure to forecast accurately the long-term value and costs of the Technicolor business or of certain assets acquired in the transactions;
- liabilities that are not covered by, or exceed the coverage under, the indemnification or other provisions of the acquisition-related agreements; and
- patent validity, infringement, exhaustion or enforcement issues not uncovered during our diligence process.

In the event that we experience significant integration difficulties or delays, or fail to realize the anticipated benefits from the integration, our business and results of operations, and our stock price, may be adversely affected.

We have in the past and may in the future make acquisitions or engage in other strategic transactions that could result in significant changes, costs and/or management disruption and that may fail to enhance shareholder value or produce the anticipated benefits.

We have in the past and may in the future acquire companies, businesses, technology and/or intellectual property, enter into joint ventures or other strategic transactions. Acquisitions or other strategic transactions may increase our costs, including

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but not limited to accounting and legal fees, and may not generate financial returns or result in increased adoption or continued use of our technologies or of any technologies we may acquire.

Achieving the anticipated benefits of acquisitions depends in part upon our ability to integrate the acquired companies, businesses and/or assets in an efficient and effective manner. The integration of acquired companies or businesses may result in significant challenges, including, among others: successfully integrating new employees, technology and/or products; consolidating research and development operations; minimizing the diversion of management's attention from ongoing business matters; and consolidating corporate and administrative infrastructures. As a result, we may be unable to accomplish the integration smoothly or successfully.

In addition, we cannot be certain that the integration of acquired companies, businesses, technology and/or intellectual property with our business will result in the realization of the full benefits we anticipate will be realized from such acquisitions. Our plans to integrate and/or expand upon research and development programs and technologies obtained through acquisitions may result in products or technologies that are not adopted by the market, or the market may adopt solutions competitive to our products or technologies. We may not derive any commercial value from the acquired technology or intellectual property or from future technologies or products based on the acquired technology and/or intellectual property. In addition, to the extent we are separately seeking a patent license from a customer or customers of an acquired entity, the acquired entity may lose such customers. Following the completion of the acquisition, we may be subject to liabilities that are not covered by, or exceed the coverage under, the indemnification protection we may obtain, and we may encounter patent validity, infringement or enforcement issues or unforeseen expenses not uncovered during our diligence process. Any acquired company or business would be subject to its own risks that may or may not be the same as the risks already disclosed herein.

Challenges relating to our ability to enter into new license agreements could cause our revenue and cash flow to decline.

We face challenges in entering into new patent license agreements. One of the most significant challenges we face is that most potential licensees do not voluntarily seek to enter into license agreements with us before they commence manufacturing and/or selling devices that use our patented inventions. As a result, we must approach companies that are reluctant to take licenses and attempt to establish license agreements with them. The process of identifying potential users of our inventions and negotiating license agreements with reluctant prospective licensees requires significant time, effort and expense. Once discussions with unlicensed companies have commenced, we face the additional challenges imposed by the significant negotiation issues that arise from time to time. Given these challenges relating to our ability to enter into new license agreements, we cannot ensure that all prospective licensees will be identified or, if they are identified, will be persuaded during negotiations to enter into a patent license agreement with us, either at all or on terms acceptable to us, and, as a result, our revenue and cash flow could materially decline. The length of time required to negotiate a license agreement also leads to delays in the receipt of the associated revenue stream, which could also cause our revenue and cash flow to decline.

In addition, as discussed more fully above in these Risk Factors, we are currently operating in a challenging regulatory and judicial environment, which may, under certain circumstances, lead to delays in the negotiation of and entry into new patent license agreements. Also, as discussed above in these Risk Factors and in Item 3, Legal Proceedings, in this Form 10-K, we are also currently, and may in the future be, involved in legal proceedings with potential licensees, with whom we do not yet have a patent license agreement. Any such delays in the negotiation or entry into new patent license agreements and receipt of the associated revenue stream could cause our revenue and cash flow to decline.

Our revenues are derived primarily from a limited number of licensees or customers.

We earn a significant amount of our revenues from a limited number of licensees or customers, and we expect that a significant portion of our revenues will continue to come from a limited number of licensees or customers for the foreseeable future. For example, in 2018, Apple, Samsung and LG Electronics accounted for approximately 36%, 25% and 10% of our total revenues, respectively. In the event that we are unable to renew one or more of such license agreements upon expiration, our future revenue and cash flow could be materially adversely affected. In addition, in the event that one or more of our significant licensees or customers fail to meet their payment or reporting obligations (for example, due to a credit issue or in connection with a legal dispute or similar proceeding) under their respective license agreements, our future revenue and cash flow could be materially adversely affected. In addition, in the event

that there is a material decrease in shipments of licensed products by one of our per-unit licensees, our revenues from such licensee could significantly decline and our future revenue and cash flow could be adversely affected.

Our strategy to diversify our patent-based revenue by pursuing alternative patent licensing arrangements and patent sales may not be successful.

There is no guarantee that we will succeed in our pursuit of select patent licensing arrangements or patent sales, and, if we are successful, there is no guarantee that the revenue and cash flow generated through such alternative licensing arrangements (such as the Signal Trust and the Avanci licensing platform) or patent sales will be greater than the revenue and

cash flow we would have generated if we had retained and/or licensed the patents ourselves. In addition, potential licensees may be reluctant to enter into new patent license agreements, and current licensees may be reluctant to renew their agreements, either at all or on terms acceptable to the Company, based on the fact that we have sold portions of our patent portfolio or the belief that we plan to sell or transfer some of the patents we are asking them to license.

A portion of our revenue and cash flow are dependent upon our licensees' sales and market conditions and other factors that are beyond our control or are difficult to forecast.

A portion of our licensing revenues is running royalty-based and dependent on sales by our licensees that are outside our control and that could be negatively affected by a variety of factors, including global, regional and/or country-specific economic conditions, country-specific natural disasters impacting licensee manufacturing and sales, buying patterns of end users, which are often driven by replacement and innovation cycles, competition for our licensees' products and any decline in the sale prices our licensees receive for their covered products. In addition, our operating results also could be affected by general economic and other conditions that cause a downturn in the market for the licensees of our products or technologies. Our revenue and cash flow also could be affected by (i) the unwillingness of any licensee to satisfy all of their royalty obligations on the terms or within the timeframe we expect, (ii) a decline in the financial condition of any licensee or (iii) the failure of sales to meet market forecasts due to global or regional economic conditions, political instability, natural disasters, competitive technologies or otherwise. It is also difficult to predict the timing, nature and amount of licensing revenue associated with past infringement and new licenses, strategic relationships and the resolution of legal proceedings. The foregoing factors are difficult to forecast and could adversely affect both our quarterly and annual operating results and financial condition. In addition, some of our patent license agreements provide for upfront fixed payments or prepayments that cover our licensees' future sales for a specified period and reduce future cash receipts from those licensees. As a result, our cash flow has historically fluctuated from period to period. Depending upon the payment structure of any new patent license agreements into which we may enter, such cash flow fluctuations may continue in the future.

Our revenue may be affected by the deployment of future-generation wireless standards in place of 3G, 4G and 5G technologies or future-generation video standards, by the timing of such deployment, or by the need to extend or modify certain existing license agreements to cover subsequently issued patents.

Although we own an evolving portfolio of issued and pending patents related to 3G, 4G and 5G cellular technologies and non-cellular technologies including video coding technologies, our patent portfolio licensing program for future-generation wireless standards or video coding standards may not be as successful in generating licensing income as our current licensing programs. Although we continue to participate in worldwide standards bodies and contribute our intellectual property to future-generation wireless and video coding standards, including standards that will define 5G, our technologies might not be adopted by the relevant standards. In addition, we may not be as successful in the licensing of future-generation products as we have been in licensing products deploying existing wireless and video coding standards, or we may not achieve a level of royalty revenues on such products that is comparable to that which we have historically received on products deploying existing wireless and video coding standards. Furthermore, if there is a delay in the standardization and/or deployment of 5G or future video coding standards, our business and revenue could be negatively impacted.

The licenses that we grant under our patent license agreements typically only cover products designed to operate in accordance with specified technologies and that were manufactured or deployed or anticipated to be manufactured or deployed at the time of entry into the agreement. Also, we have patent license agreements with licensees that now offer for sale types of products that were not sold by such licensees at the time the patent license agreements were entered into and, thus, are not licensed by us. We do not derive patent licensing revenue from the sale of products by our licensees that are not covered by a patent license agreement. In order to grant a patent license for any such products, we will need to extend or modify our patent license agreements or enter into new license agreements with such licensees. We may not be able to extend or modify these license agreements, or enter into new license agreements, on financial terms acceptable to us, without affecting the other material terms and conditions of our license agreements with such licensees or at all. Further, such extensions, modifications or new license agreements may adversely affect our revenue on the sale of products covered by the license prior to any extension, modification or

new license.

We face risks from doing business and maintaining offices in international markets.

A significant portion of our licensees, potential licensees and customers are international, and our licensees, potential licensees and customers sell their products to markets throughout the world. In addition, in recent years, we have expanded, and we may continue to expand, our international operations, opening offices in France, the United Kingdom, South Korea, China, Belgium and Germany. Accordingly, we are subject to the risks and uncertainties of operating internationally and could be affected by a variety of uncontrollable and changing factors, including, but not limited to: difficulty in protecting our intellectual property in foreign jurisdictions; enforcing contractual commitments in foreign jurisdictions or against foreign corporations; government regulations, tariffs and other applicable trade barriers; biased enforcement of foreign laws and regulations to promote industrial or economic policies at our expense; currency control regulations and variability in the value

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of the U.S. dollar against foreign currency; export license requirements and restrictions on the use of technology; social, economic and political instability; natural disasters, acts of terrorism, widespread illness and war; potentially adverse tax consequences; general delays in remittance of and difficulties collecting non-U.S. payments; foreign labor regulations; anti-corruption laws; and difficulty in staffing and managing operations remotely. In addition, we also are subject to risks specific to the individual countries in which we and our licensees, potential licensees and customers do business.

We depend on key senior management, engineering, patent and licensing resources.

Our future success depends largely upon the continued service of our executive officers and other key management and technical personnel, as well as on our ability to put in place adequate succession plans for such key personnel, and/or organizational strategies related to the departure of such key personnel. Our success also depends in part on our ability to continue to attract, retain and motivate qualified personnel with specialized patent, licensing, engineering and other skills. The market for such talent in our industry is extremely competitive. In particular, competition exists for qualified individuals with expertise in patents and in licensing and with significant engineering experience in cellular and air interface technologies, as well as video coding technologies. Our ability to attract and retain qualified personnel could be affected by any adverse decisions in any litigation, arbitration or regulatory proceeding, by our ability to offer competitive cash and equity compensation and work environment conditions and by the geographic location of our various offices. The failure to attract and retain such persons with relevant and appropriate experience or to have in place adequate succession plans and/or organizational strategies related to the departure of certain key personnel could interfere with our ability to enter into new license agreements and undertake additional technology and product development efforts, as well as our ability to meet our strategic objectives.

Our industry is subject to rapid technological change, uncertainty and shifting market opportunities.

Our success depends, in part, on our ability to define and keep pace with changes in industry standards, technological developments and varying customer requirements. Changes in industry standards and needs could adversely affect the development of, and demand for, our technology, rendering our technology currently under development obsolete and unmarketable. The patents and applications comprising our portfolio have fixed terms, and, if we fail to anticipate or respond adequately to these changes through the development or acquisition of new patentable inventions, patents or other technology, we could miss a critical market opportunity, reducing or eliminating our ability to capitalize on our patents, technology solutions or both.

Concentration and consolidation in the wireless communications industry could adversely affect our business.

There is some concentration among participants in the wireless communications industry, and the industry has experienced consolidation of participants and sales of participants or their businesses, and these trends may continue. For example, in 2018, Samsung, Apple and Huawei collectively accounted for approximately 40% of worldwide shipments of 3G and 4G handsets and close to 50% of worldwide smartphone shipments. Any further concentration or sale within the wireless industry among handset providers and/or original design manufacturers ("ODMs") may reduce the number of licensing opportunities or, in some instances, result in the reduction, loss or elimination of existing royalty obligations. We may also face a reduction in the number of licensing opportunities or existing royalty obligations as a result of government-imposed bans or other restrictions on the importation, manufacture and/or sale of cellular handsets by certain companies. In addition, acquisitions of or consolidation among ODMs could cause handset providers who outsource manufacturing to make supply chain changes, which in turn could result in the reduction, loss or elimination of existing royalty obligations (for example, if manufacturing is moved from an ODM with which we have a patent license agreement to an ODM with which we do not). Further, if wireless carriers consolidate with companies that utilize technologies that are competitive with our technologies or that are not covered by our patents, we could lose market opportunities, which could negatively impact our revenues and financial condition.

Our use of open source software could materially adversely affect our business, financial condition, operating results and cash flow.

Certain of our technology and our suppliers' technology may contain or may be derived from "open source" software, which, under certain open source licenses, may offer accessibility to a portion of a product's source code and may expose related intellectual property to adverse licensing conditions. Licensing of such technology may impose certain

obligations on us if we were to distribute derivative works of the open source software. For example, these obligations may require us to make source code for derivative works available or license such derivative works under a particular type of license that is different from what we customarily use to license our technology. While we believe we have taken appropriate steps and employ adequate controls to protect our intellectual property rights, our use of open source software presents risks that, if we inappropriately use open source software, we may be required to re-engineer our technology, discontinue the sale of our technology, release the source code of our proprietary technology to the public at no cost or take other remedial actions, which could adversely affect our business, operating results and financial condition. There is a risk that open source licenses could be

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construed in a way that could impose unanticipated conditions or restrictions on our ability to commercialize our solutions, which could adversely affect our business, operating results and financial condition. In addition, developing open source products, while adequately protecting the intellectual property rights upon which our licensing business depends, may prove burdensome and time-consuming under certain circumstances, thereby placing us at a competitive disadvantage.

Changes to our tax assets or liabilities could have an adverse effect on our consolidated financial condition or results of operations.

The calculation of tax assets and liabilities involves significant judgment in estimating the impact of uncertainties in the application of complex tax laws. We are subject to examinations by the Internal Revenue Service ("IRS") and other taxing jurisdictions on various tax matters, including challenges to various positions we assert in our filings and foreign tax liability and withholding. Pursuant to the guidance for accounting for uncertainty in income taxes, certain tax contingencies are recognized when they are determined to be more likely than not to occur. Although we believe we have adequately recorded tax assets and accrued for tax contingencies that meet this criterion, we may not fully recover our tax assets or may be required to pay taxes in excess of the amounts we have accrued. As of December 31, 2018, and 2017, there were certain tax contingencies that did not meet the applicable criteria to record an accrual. In the event that the IRS or another taxing jurisdiction levies an assessment in the future, it is possible the assessment could have an adverse effect on our consolidated financial condition or results of operations.

Changes in financial accounting standards or policies may affect our reported financial condition or results of operations and, in certain cases, could cause a decline and/or fluctuations in the price of our common stock.

From time to time the Financial Accounting Standards Board (the “FASB”) and the Staff of the Securities and Exchange Commission (the "SEC") change their guidance governing the form and content of our external financial statements. In addition, accounting standard setters and those who interpret U.S. generally accepted accounting principles (“GAAP”), such as the FASB and the SEC, may change or even reverse their previous interpretations or positions with regard to how these standards should be applied. A change in accounting principles or their interpretation can have a significant effect on our reported results. In certain cases, we could be required to apply new or revised guidance retroactively or apply existing guidance differently. Potential changes in reporting standards could substantially change our reporting practices in a number of areas, including revenue recognition and recording of assets and liabilities, and affect our reported financial condition or results of operations.

For example, in May 2014, the FASB and International Accounting Standards Board issued revenue guidance, Revenue from Contracts with Customers, that the Company has adopted effective January 1, 2018, which impacts our recognition of revenue from both our fixed-fee and per-unit license agreements. Refer to Note 3, "Revenue Recognition," in the consolidated financial statements for further information regarding this adoption. Such changes to our reporting practices could significantly affect our reported financial condition and results of operations going forward, causing the amount of revenue we recognize to vary dramatically from quarter to quarter, and even year to year, depending on the timing of entry into license agreements and whether such agreements are dynamic or static fixed-fee agreements or have per-unit royalty terms. In addition, these changes to our reporting practices and the resulting fluctuations in our reported revenue could cause a decline and/or fluctuations in the price of our common stock.

The high amount of capital required to obtain radio frequency licenses, deploy and expand wireless networks and obtain new subscribers, as well as the cost of new handsets could slow the growth of the wireless communications industry and adversely affect our business.

Our growth is partially dependent upon the increased use of wireless communications services and cellular handsets that utilize our technology. In order to provide wireless communications services, wireless operators must obtain rights to use specific radio frequencies. The allocation of frequencies is regulated in the United States and other countries throughout the world, and limited spectrum space is allocated to wireless communications services. Industry growth may be affected by the amount of capital required to obtain licenses to use new frequencies, deploy wireless networks to offer voice and data services, expand wireless networks to grow voice and data services and obtain new subscribers. The significant cost of licenses, wireless networks and subscriber additions may slow the growth of the industry if wireless operators are unable to obtain or service the additional capital necessary to implement or expand

advanced wireless networks. Growth in the number of cellular handsets may slow as the number of people worldwide without a cellular handset declines. In addition, if the cost of cellular handsets increases, customers may be less likely to replace their existing devices with new devices. The growth of our business could be adversely affected if either of these events occur.

Market projections and data are forward-looking in nature.

Our strategy is based on our own projections and on analyst, industry observer and expert projections, which are forward-looking in nature and are inherently subject to risks and uncertainties. The validity of their and our assumptions, the

timing and scope of wireless markets, economic conditions, customer buying patterns, timeliness of equipment development, pricing of products, growth in wireless telecommunications services that would be delivered on wireless devices and availability of capital for infrastructure improvements could affect these predictions. In addition, market data upon which we rely is based on third party reports that may be inaccurate. The inaccuracy of any of these projections and/or market data could adversely affect our operating results and financial condition.

We face competition from companies developing other or similar technologies.

We face competition from companies developing other and similar technologies that are competitive with our products and solutions that we may market or set forth into the standards-setting arena. Due to competing products and solutions, our products and solutions may not find a viable commercial marketplace or, where applicable, be adopted by the relevant standards. In addition, in licensing our patent portfolio, we may compete with other companies, many of whom also claim to hold essential patents, for a share of the royalties that certain licensees may argue to be the total royalty that is supported by a certain product or products. In any device or piece of equipment that contains intellectual property, the manufacturer may need to obtain a license from multiple holders of intellectual property. To the extent that multiple parties all seek royalties on the same product, the manufacturers could claim to have difficulty in meeting the financial requirements of each patent holder.

Our engineering services business could subject us to specific costs and risks that we might fail to manage adequately.

We derive a portion of our revenues from engineering services. Any mismanagement of, or negative development in, a number of areas, including, among others, the perceived value of our intellectual property portfolio, our ability to convince customers of the value of our engineering services and our reputation for performance under our service contracts, could cause our revenues from engineering services to decline, damage our reputation and harm our ability to attract future licensees, which would in turn harm our operating results. If we fail to deliver as required under our service contracts, we could lose revenues and become subject to liability for breach of contract. We need to monitor these services adequately in order to ensure that we do not incur significant expenses without generating corresponding revenues. Our failure to monitor these services adequately may harm our business, financial position, results of operations or cash flows.

We may experience difficulties with our new enterprise resource planning (“ERP”) system.

In first quarter 2018, we implemented a new enterprise resource planning (“ERP”) system designed to efficiently maintain our books and records and provide information important to the operation of our business to our management team. We have committed significant resources to this new system, and realizing the full functionality of the system is complex. As a result of the conversion process, we may experience delays or disruptions in the integration of our new systems, procedures or controls. We may also encounter errors in data and security or technical reliability issues. Significant system failures could lead to a delay or error in recording and reporting financial information on a timely and accurate basis or impact our internal control compliance efforts, which could have a material adverse effect on our financial condition or results of operations.

It can be difficult for us to verify royalty amounts owed to us under our per-unit licensing agreements, and this may cause us to lose potential revenue.

The standard terms of our per-unit license agreements require our licensees to document the sale of licensed products and report this data to us on a quarterly basis. Although our standard license terms give us the right to audit books and records of our licensees to verify this information, audits can be expensive, time consuming, incomplete and subject to dispute. From time to time, we audit certain of our licensees to verify independently the accuracy of the information contained in their royalty reports in an effort to decrease the likelihood that we will not receive the royalty revenues to which we are entitled under the terms of our license agreements, but we cannot give assurances that these audits will be numerous enough and/or effective to that end.

Our plans to expand our revenue opportunities through commercializing our market-ready technologies and acquiring and/or developing new technology with commercial applicability may not be successful and could materially adversely affect our long-term business, financial condition and operating results.

As part of our business strategy, we are seeking to expand our revenue opportunities through the continued development, commercialization and licensing of technology projects, including in the IoT space. Our technology development and acquisition activities may experience delays, or the markets for our technology solutions may fail to

materialize to the extent or at the rate we expect, if at all, each of which could reduce our opportunities for technology sales and licensing. In addition, there could be fewer applications for our technology and products than we expect. Technology markets also could be affected by general economic conditions, customer buying patterns, timeliness of equipment development, and the availability of capital for, and the high cost of, infrastructure improvements. Additionally, investing in technology development is costly and may require structural changes to the organization that could require additional costs, including without limitation legal and accounting fees. Furthermore, delays or failures to enter into additional partnering relationships to facilitate technology development efforts and secure support for our technologies or delays or failures to enter into technology licensing agreements

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to secure integration of additional functionality could impair our ability to introduce into the market portions of our technology and resulting products, cause us to miss critical market windows, or decrease our ability to remain competitive.

We have in the past and may in the future make investments that may fail to enhance shareholder value or produce the anticipated benefits.

We have in the past and may in the future make investments in other entities by purchasing minority equity interests or corporate bonds/notes in publicly traded or privately held companies. Most strategic investments entail a high degree of risk and may not become liquid for a period of time, if ever. In some cases, strategic investments may serve as consideration for a license in lieu of cash royalties. In addition, other investments may not generate financial returns or may result in losses due to market volatility, the general level of interest rates and inflation expectations. We have made in the past and may make in the future strategic investments in early-stage companies, which may require us to consolidate or record our share of the earnings or losses of those companies. Our share of any such losses may adversely affect our financial results until we exit from or reduce our exposure to these investments.

Our investments in new commercial initiatives may not be successful or generate meaningful revenues.

We have invested, and may continue to invest, in new businesses focused on commercializing technology that we have developed, incubated internally and/or acquired, such as video coding technology and other technologies for use on consumer electronics devices. Commercial success depends on many factors, including the demand for the technology, the highly competitive markets for our technology products, regulatory issues associated with such technology products, and effective marketing and licensing or product sales. In addition, our new technology offerings may require robust ecosystems of customers and service providers that may fail to materialize. Further, the establishment and operation of these commercial initiatives requires significant support, including technical, legal and financial resources. It is possible that these commercial initiatives will not be successful and/or will not achieve meaningful revenues for a number of years, if at all. Further, we may attempt to develop technologies or services that we believe we would be able to sell or license commercially using inside or outside technical, legal and financial resources. If our new commercial initiatives are not successful, or are not successful in the timeframe we anticipate, we may incur significant costs, our business may not grow as anticipated and/or our reputation may be harmed. In the event that any of these risks materialize, our long-term business, financial condition and operating results may be materially adversely affected.

We may be subject to warranty and/or product liability claims with respect to our products, which could be time-consuming and costly to defend and could expose us to loss and reputational damage.

We may be subject to claims if customers of our product offerings are injured or experience failures or other quality issues. We may from time to time be subject to warranty and product liability claims with regard to product performance and our services. We could incur losses as a result of warranty, support, repair or replacement costs in response to customer complaints or in connection with the resolution of contemplated or actual legal proceedings relating to such claims. In addition to potential losses arising from claims and related legal proceedings, warranty and product liability claims could affect our reputation and our relationship with customers.

Our technology development activities may experience delays.

We may experience technical, financial, resource or other difficulties or delays related to the further development of our technologies. Delays may have adverse financial effects and may allow competitors with comparable technology offerings to gain an advantage over us in the marketplace or in the standards setting arena. There can be no assurance that we will continue to have adequate staffing or that our development efforts will ultimately be successful. Moreover, certain of our technologies have not been fully tested in commercial use, and it is possible that they may not perform as expected. In such cases, our business, financial condition and operating results could be adversely affected, and our ability to secure new licensees and other business opportunities could be diminished.

We rely on relationships with third parties to develop and deploy technology solutions.

Successful exploitation of our technology solutions is partially dependent on the establishment and success of relationships with equipment producers and other industry participants. Delays or failure to enter into licensing or other relationships to facilitate technology development efforts or delays or failure to enter into technology licensing agreements to secure integration of additional functionality could impair our ability to introduce into the market

portions of our technology and resulting products, cause us to miss critical market windows or impair our ability to remain competitive.

Our business may be adversely affected if third parties assert that we violate their intellectual property rights with respect to products and/or solutions that we sell or license.

Third parties may claim that we or our customers are infringing upon their intellectual property rights with respect to products and/or solutions we sell or license. Even if we believe that such claims are without merit, they can be time-consuming

and costly to defend against and may divert management's attention and resources away from our business. Furthermore, third parties making such claims may be able to obtain injunctive or other equitable relief that could block our ability to further develop or commercialize some of our technologies or services in the United States and abroad and could cause us to stop selling, delay shipments of, or redesign our products. Claims of intellectual property infringement also might require us to enter into costly settlement or license agreements or pay costly damage awards. Even if we have an agreement that provides for a third party to indemnify us against such costs, the indemnifying party may be unable or unwilling to perform its contractual obligations. If we cannot use valid intellectual property that we infringe at all or on reasonable terms, or substitute similar non-infringing technology from another source, our business, financial position, results of operations or cash flows could be adversely affected.

Currency fluctuations could negatively affect future product sales or royalty revenues or increase the U.S. dollar cost of our activities and international strategic investments.

We are exposed to risk from fluctuations in currencies, which may change over time as our business practices evolve, that could impact our operating results, liquidity and financial condition. We operate and invest globally. Adverse movements in currency exchange rates may negatively affect our business due to a number of situations, including the following:

- If the effective price of products sold by our licensees were to increase as a result of fluctuations in the exchange rate of the relevant currencies, demand for the products could fall, which in turn would reduce our royalty revenues.
- Assets or liabilities of our consolidated subsidiaries may be subject to the effects of currency fluctuations, which may affect our reported earnings. Our exposure to foreign currencies may increase as we expand into new markets.
- Certain of our operating and investing costs, such as foreign patent prosecution, are based in foreign currencies. If these costs are not subject to foreign exchange hedging transactions, strengthening currency values in selected regions could adversely affect our near-term operating expenses, investment costs and cash flows. In addition, continued strengthening of currency values in selected regions over an extended period of time could adversely affect our future operating expenses, investment costs and cash flows.
- If as a result of tax treaty procedures, the U.S. government reaches an agreement with certain foreign governments to whom we have paid foreign taxes, resulting in a partial refund of foreign taxes paid with a related reduction in our foreign tax credits, such agreement could result in foreign currency gain or loss.

Our business and operations could suffer in the event of security breaches and our business is subject to a variety of domestic and international laws, rules and policies and other obligations regarding data protection.

Attempts by others to gain unauthorized access to information technology systems are becoming more sophisticated. These attempts, which in some cases could be related to industrial or other espionage, include covertly introducing malware to computers and networks and impersonating authorized users, among others. We seek to detect and investigate all security incidents and to prevent their recurrence, but, in some cases, we might be unaware of an incident or its magnitude and effects. While we have not identified any material incidents of unauthorized access to date, the theft, unauthorized use or publication of our intellectual property and/or confidential business or personal information (whether through a breach of our own systems or the breach of a system of a third party that provides services to us) could harm our competitive or negotiating positions, reduce the value of our investment in research and development and other strategic initiatives, compromise our patent enforcement strategies or outlook, damage our reputation or otherwise adversely affect our business. In addition, to the extent that any future security breach results in inappropriate disclosure of our employees', licensees', or customers' confidential and /or personal information, we may incur liability or additional costs to remedy any damages caused by such breach.

We could also be affected by existing and proposed laws and regulations, as well as government policies and practices related to cybersecurity, privacy and data protection. For example, the European General Data Protection Regulation ("GDPR") adopted by the European Commission became effective in May 2018, and China adopted a new cybersecurity law as of June 2017. Complying with the GDPR and other existing and emerging and changing requirements could cause us to incur substantial costs or require us to change our business practices. Non-compliance could result in monetary penalties or significant legal liability.

If wireless handsets are perceived to pose health and safety risks, demand for products of our licensees could decrease.

Media reports and certain studies have suggested that radio frequency emissions from wireless handsets may be linked to health concerns, such as brain tumors, other malignancies and genetic damage to blood, and may interfere with electronic medical devices, such as pacemakers, telemetry and delicate medical equipment. Growing concerns over radio frequency emissions, even if unfounded, could discourage the use of wireless handsets and cause a decrease in demand for the products of our licensees. In addition, concerns over safety risks posed by the use of wireless handsets while driving and the effect of any resulting legislation could reduce demand for the products of our licensees.

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Risks Relating to Our Common Stock and the 2020 Notes

The price of our common stock is volatile and may decline regardless of our operating performance.

Historically, we have had large fluctuations in the price of our common stock, and such fluctuations could continue. From January 2, 2017 to February 19, 2019, the trading price of our common stock has ranged from a low of $62.34 per share to a high of $102.30 per share. The market price for our common stock is volatile and may fluctuate significantly in response to a number of factors, most of which we cannot control, including:

- the public's response to press releases or other public announcements by us or third parties, including our filings with the SEC and announcements relating to licensing, technology development, litigation, arbitration and other legal proceedings in which we are involved and intellectual property impacting us or our business;
- announcements concerning strategic transactions, such as commercial initiatives, joint ventures, strategic investments, acquisitions or divestitures;
- financial projections we may provide to the public, any changes in these projections or our failure to meet these projections;
- changes in GAAP, including new accounting standards that may materially affect our revenue recognition;
- changes in financial estimates or ratings by any securities analysts who follow our common stock, our failure to meet these estimates or failure of those analysts to initiate or maintain coverage of our common stock;
- investor perceptions as to the likelihood of achievement of near-term goals;
- changes in market share of significant licensees;
- changes in operating performance and stock market valuations of other wireless communications companies generally; and
- market conditions or trends in our industry or the economy as a whole.

In the past, shareholders have instituted securities class action litigation following periods of market volatility. If we were involved in securities litigation, we could incur substantial costs and our resources and the attention of management could be diverted from our business.

Our indebtedness could adversely affect our business, financial condition and results of operations and our ability to meet our payment obligations under such indebtedness.

Our total indebtedness as of December 31, 2018 was approximately $334.4 million, inclusive of debt resulting from the Technicolor Acquisition that was completed in third quarter 2018 (refer to Note 5, "Business Combinations," in the consolidated financial statements for further information). This level of debt could have significant consequences on our future operations, including:

- making it more difficult for us to meet our payment and other obligations under our 1.50% Senior Convertible Notes due 2020 (the "2020 Notes");
- reducing the availability of our cash flow to fund working capital, capital expenditures, acquisitions and other general corporate purposes, and limiting our ability to obtain additional financing for these purposes;
- limiting our flexibility in planning for, or reacting to, and increasing our vulnerability to, changes in our business, the industry in which we operate and the general economy; and
- placing us at a competitive disadvantage compared to our competitors that have less debt or are less leveraged.

Any of the above-listed factors could have an adverse effect on our business, financial condition and results of operations and our ability to meet our payment obligations under the 2020 Notes.

Our ability to meet our payment and other obligations under the 2020 Notes depends on our ability to generate significant cash flow in the future. This, to some extent, is subject to general economic, financial, competitive, legislative and regulatory factors as well as other factors that are beyond our control. We cannot be certain that our business will generate cash flow from operations, or that future borrowings will be available to us, in an amount sufficient to enable us to meet our payment obligations under the 2020 Notes and to fund other liquidity needs. If we are not able to generate sufficient cash flow to service our debt obligations, we may need to refinance or restructure our debt, including the 2020 Notes, sell assets, reduce or delay capital investments, or seek to raise additional capital. If we are unable to implement one or more of these alternatives, we may not be able to meet our payment obligations under the 2020 Notes, and this default could cause us to be in default on any other currently existing or future outstanding indebtedness.

Our shareholders may not receive the level of dividends provided for in our dividend policy or any dividend at all, and any decrease in or suspension of the dividend could cause our stock price to decline.

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Our current dividend policy contemplates the payment of a regular quarterly cash dividend of $0.35 per share on our outstanding common stock. We expect to continue to pay quarterly cash dividends on our common stock at the rate set forth in our current dividend policy. However, the dividend policy and the payment and timing of future cash dividends under the policy are subject to the final determination each quarter by our Board of Directors that (i) the dividend will be made in compliance with laws applicable to the declaration and payment of cash dividends, including Section 1551(b) of the Pennsylvania Business Corporation Law, and (ii) the policy remains in our best interests, which determination will be based on a number of factors, including our earnings, financial condition, capital resources and capital requirements, alternative uses of capital, restrictions imposed by any existing debt, economic conditions and other factors considered relevant by the Board of Directors. Given these considerations, our Board of Directors may increase or decrease the amount of the dividend at any time and may also decide to vary the timing of or suspend or discontinue the payment of cash dividends in the future. Any decrease in the amount of the dividend, or suspension or discontinuance of payment of a dividend, could cause our stock price to decline.

If securities or industry analysts fail to continue publishing research about our business, our stock price and trading volume could decline.

The trading market for our common stock is influenced by the research and reports that industry or securities analysts publish about us or our business. If one or more of these analysts cease coverage of our company or fail to publish reports on us regularly, we could lose visibility in the financial markets, which in turn could cause our stock price or trading volume to decline.

The convertible note hedge transactions and warrant transactions that we entered into in connection with the offering of the 2020 Notes may affect the value of the 2020 Notes and the market price of our common stock.

In connection with each offering of the 2020 Notes, we entered into convertible note hedge transactions with certain financial institutions (the “option counterparties”) and sold warrants to the option counterparties. These transactions will be accounted for as an adjustment to our shareholders’ equity. The convertible note hedge transactions are expected to reduce the potential equity dilution upon conversion of the 2020 Notes. The warrants will have a dilutive effect on our earnings per share to the extent that the market price of our common stock exceeds the applicable strike price of the warrants on any expiration date of the warrants.

In connection with establishing their initial hedge of these transactions, the option counterparties (and/or their affiliates) purchased our common stock in open market transactions and/or privately negotiated transactions and/or entered various cash-settled derivative transactions with respect to our common stock concurrently with, or shortly after, the pricing of the 2020 Notes. These activities could have the effect of increasing (or reducing the size of any decrease in) the price of our common stock concurrently with or following the pricing of the 2020 Notes. In addition, the option counterparties (and/or their affiliates) may modify their respective hedge positions from time to time (including during any observation period related to a conversion of the 2020 Notes) by entering into or unwinding various derivative transactions with respect to our common stock and/or by purchasing or selling our common stock in open market transactions and/or privately negotiated transactions.

The potential effect, if any, of any of these transactions and activities on the market price of our common stock will depend in part on market conditions and cannot be ascertained at this time, but any of these activities could adversely affect the market price of our common stock.

Future sales or other dilution of our equity could depress the market price of our common stock.

Sales of our common stock in the public market, or the perception that such sales could occur, could negatively impact the market price of our common stock. We also have several institutional shareholders that own significant blocks of our common stock. If one or more of these shareholders were to sell large portions of their holdings in a relatively short time, for liquidity or other reasons, the prevailing market price of our common stock could be negatively affected.

Under certain circumstances, shares of our common stock could be issued upon conversion of the 2020 Notes, which would dilute the ownership interest of our existing shareholders. In addition, the issuance of additional common stock, or issuances of securities convertible into or exercisable for our common stock or other equity linked securities, including preferred stock or warrants, would dilute the ownership interest of our common shareholders and could depress the market price of our common stock and impair our ability to raise capital through the sale of additional

equity securities.

Approved stock repurchase programs may not result in a positive return of capital to shareholders.

Our board-approved stock repurchase program may not return value to shareholders because the market price of the stock may decline significantly below the levels at which we repurchased shares of stock. Stock repurchase programs are intended to deliver shareholder value over the long term, but stock price fluctuations can reduce the effectiveness of such programs.

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Provisions of the 2020 Notes could discourage an acquisition of us by a third party.

Certain provisions of the 2020 Notes could make it more difficult or more expensive for a third party to acquire us. Upon the occurrence of certain transactions constituting a fundamental change, holders of the 2020 Notes will have the right, at their option, to require us to repurchase all of their 2020 Notes or any portion of the principal amount of such 2020 Notes in integral multiples of $1,000. We may also be required to issue additional shares upon conversion in the event of certain fundamental change transactions. These provisions could limit the price that some investors might be willing to pay in the future for shares of our common stock.

We are subject to counterparty risk with respect to the convertible note hedge transactions.

The option counterparties are financial institutions or affiliates of financial institutions, and we will be subject to the risk that the option counterparties may default under the respective convertible note hedge transactions. Our exposure to the credit risk of the option counterparties is not secured by any collateral. Recent global economic conditions have resulted in the actual or perceived failure or financial difficulties of many financial institutions. If an option counterparty becomes subject to insolvency proceedings, we will become an unsecured creditor in those proceedings with a claim equal to our exposure at that time under the convertible note hedge transactions. Our exposure will depend on many factors but, generally, the increase in our exposure will be correlated to the increase in our common stock market price and in volatility of our common stock. In addition, upon a default by an option counterparty, we may suffer adverse tax consequences and dilution with respect to our common stock. We can provide no assurance as to the financial stability or viability of the option counterparties.

The accounting method for convertible debt securities, such as the 2020 Notes, could have a material adverse effect on our reported financial results.

In May 2008, the FASB, issued ASC 470-20. Under ASC 470-20, an entity must separately account for the liability and equity components of convertible debt instruments, such as the 2020 Notes, that may be settled partially in cash upon conversion in a manner that reflects the issuer's economic interest cost. ASC 470-20 requires the fair value of the conversion option of the 2020 Notes be reported as a component of shareholders' equity and included in the additional paid-in-capital on our consolidated balance sheet. The value of the conversion option of the 2020 Notes will be reported as discount to the 2020 Notes. We will report lower net income in our financial results because ASC 470-20 will require interest to include both the current period's amortization of the debt discount (non-cash interest) and the instrument's cash interest, which could adversely affect our reported or future financial results, the trading price of our common stock and the trading price of the 2020 Notes.

Item 1B. UNRESOLVED STAFF COMMENTS.

None.

Item 2. PROPERTIES.

Our headquarters are located in Wilmington, Delaware, USA. Our research and development activities are conducted primarily in facilities located in Conshohocken, Pennsylvania, USA; Melville, New York, USA; Rockville, Maryland, USA; San Diego, California, USA; Princeton, New Jersey, USA; and Montreal, Quebec, Canada.

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The following table sets forth information with respect to our principal properties:

Location	Approximate Square Feet	Principal Use	Lease Expiration Date
Melville, New York	44,800	Office and research space	February 2020
Wilmington, Delaware	36,200	Corporate headquarters	November 2022
Conshohocken, Pennsylvania	30,300	Office and research space	September 2026
Montreal, Quebec	17,300	Office and research space	June 2021
Rockville, Maryland	16,700	Office and research space	August 2019
San Diego, California	10,600	Office and research space	September 2025
Rennes, France	12,400	Office space	June 2019*
Princeton, New Jersey	16,900	Office and research space	February 2025

* We sublease our facility in Rennes from Thomson Licensing SAS.

We are also a party to leases for several smaller spaces, including our offices in Buffalo, New York, USA; Berlin, Germany; Brussels, Belgium; London, England, United Kingdom; Seoul, South Korea; San Francisco, California, USA; New York City, New York, USA; Indianapolis, Indiana, USA; Paris, France; and Shanghai, China, that contain research and/or office space. In addition, we own a building in Washington, District of Columbia, USA, that houses administrative office space.

We believe that the facilities described above are suitable and adequate for our present purposes and our needs in the near future.

Item 3. LEGAL PROCEEDINGS.

ARBITRATIONS AND COURT PROCEEDINGS (OTHER THAN DE DISTRICT COURT ACTIONS RELATED TO USITC PROCEEDINGS)

2012 Huawei China Proceedings

On February 21, 2012, InterDigital was served with two complaints filed by Huawei Technologies Co., Ltd. in the Shenzhen Intermediate People's Court in China on December 5, 2011. The first complaint named as defendants InterDigital, Inc. and its wholly owned subsidiaries InterDigital Technology Corporation and InterDigital Communications, LLC (now InterDigital Communications, Inc.), and alleged that InterDigital had abused its dominant market position in the market for the licensing of essential patents owned by InterDigital by engaging in allegedly unlawful practices, including differentiated pricing, tying and refusal to deal. The second complaint named as defendants the Company's wholly owned subsidiaries InterDigital Technology Corporation, InterDigital Communications, LLC (now InterDigital Communications, Inc.), InterDigital Patent Holdings, Inc. and IPR Licensing, Inc. and alleged that InterDigital had failed to negotiate on FRAND terms with Huawei. Huawei asked the court to determine the FRAND rate for licensing essential Chinese patents to Huawei and also sought compensation for its costs associated with this matter.

On February 4, 2013, the Shenzhen Intermediate People's Court issued rulings in the two proceedings. With respect to the first complaint, the court decided that InterDigital had violated the Chinese Anti-Monopoly Law by (i) making proposals for royalties from Huawei that the court believed were excessive, (ii) tying the licensing of essential patents to the licensing of non-essential patents, (iii) requesting as part of its licensing proposals that Huawei provide a grant-back of certain patent rights to InterDigital and (iv) commencing a USITC action against Huawei while still in discussions with Huawei for a license. Based on these findings, the court ordered InterDigital to cease the alleged excessive pricing and alleged improper bundling of InterDigital's Chinese essential and non-essential patents, and to pay Huawei 20.0 million RMB (approximately $2.9 million based on the exchange rate as of December 31, 2018) in damages related to attorneys’ fees and other charges, without disclosing a factual basis for its determination of damages. The court dismissed Huawei's remaining allegations, including Huawei's claim that InterDigital improperly sought a worldwide license and improperly sought to bundle the licensing of essential patents on multiple generations of technologies. With respect to the second complaint, the court determined that, despite the fact that the FRAND requirement originates from ETSI's Intellectual Property Rights policy, which refers to French law, InterDigital's license offers to Huawei should be evaluated under Chinese law. Under Chinese law, the court concluded that

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the offers did not comply with FRAND. The court further ruled that the royalties to be paid by Huawei for InterDigital's 2G, 3G and 4G essential Chinese patents under Chinese law should not exceed 0.019% of the actual sales price of each Huawei product.

On March 11, 2013, InterDigital filed notices of appeal with respect to the judgments in both proceedings, seeking reversal of the court's February 4, 2013 rulings. On October 16, 2013, the Guangdong Province High Court issued a ruling affirming the ruling of the Shenzhen Intermediate People's Court in the second proceeding, and on October 21, 2013, issued a ruling affirming the ruling of the Shenzhen Intermediate People's Court in the first proceeding. InterDigital believes that the decisions are seriously flawed both legally and factually. For instance, in determining a purported FRAND rate, the Chinese courts applied an incorrect economic analysis by evaluating InterDigital's lump-sum 2007 patent license agreement with Apple (the "2007 Apple PLA") in hindsight to posit a running royalty rate. Indeed, the ALJ in USITC Inv. No. 337-TA-800 rejected that type of improper analysis. Moreover, the Chinese courts had an incomplete record and applied incorrect facts, including with respect to the now-expired and superseded 2007 Apple PLA, which had been found in an arbitration between InterDigital and Apple to be limited in scope.

On April 14, 2014, InterDigital filed a petition for retrial of the second proceeding with the Chinese Supreme People's Court ("SPC"), seeking dismissal of the judgment or at least a higher, market-based royalty rate for a license to InterDigital's Chinese SEPs. The petition for retrial argues, for example, that (1) the lower court improperly determined a Chinese FRAND running royalty rate by using as a benchmark the 2007 Apple lump sum fixed payment license agreement, and looking in hindsight at the unexpectedly successful sales of Apple iPhones to construct an artificial running royalty rate that neither InterDigital nor Apple could have intended and that would have varied significantly depending on the relative success or failure in hindsight of Apple iPhone sales; (2) the 2007 Apple PLA was also an inappropriate benchmark because its scope of product coverage was significantly limited as compared to the license that the court was considering for Huawei, particularly when there are other more comparable license agreements; and (3) if the appropriate benchmarks had been used, and the court had considered the range of royalties offered by other similarly situated SEP holders in the wireless telecommunications industry, the court would have determined a FRAND royalty that was substantially higher than 0.019%, and would have found, consistent with findings of the ALJ's initial determination in the USITC 337-TA-800 proceeding, that there was no proof that InterDigital's offers to Huawei violated its FRAND commitments.

The SPC held a hearing on October 31, 2014, regarding whether to grant a retrial and requested that both parties provide additional information regarding the facts and legal theories underlying the case. The SPC convened a second hearing on April 1, 2015 regarding whether to grant a retrial. On December 24, 2018, InterDigital was notified that the SPC granted InterDigital's petition for retrial of the October 16, 2013 Guangdong Province High Court decision. The SPC also issued a mediation order that terminated the proceeding. The SPC's grant of InterDigital's retrial petition suspends enforcement of the decision of the Guangdong High Court and, combined with the SPC's issuance of the mediation order, effectively vacates the Guangdong High Court's decision. There are no further proceedings in this matter.

ZTE China Proceedings

On July 10 and 11, 2014, InterDigital was served with two complaints filed by ZTE Corporation in the Shenzhen Intermediate People's Court in China on April 3, 2014. The first complaint names as defendants the Company's wholly owned subsidiaries InterDigital Technology Corporation, InterDigital Communications, Inc., InterDigital Patent Holdings, Inc. and IPR Licensing, Inc. This complaint alleges that InterDigital has failed to comply with its FRAND obligations for the licensing of its Chinese standards-essential patents. ZTE is asking the court to determine the FRAND rate for licensing InterDigital's standards-essential Chinese patents to ZTE and also seeks compensation for its litigation costs associated with this matter. The second complaint names as defendants InterDigital, Inc. and its wholly owned subsidiaries InterDigital Technology Corporation and InterDigital Communications, Inc. This complaint alleges that InterDigital has a dominant market position in China and the United States in the market for the licensing of essential patents owned by InterDigital, and abused its dominant market position in violation of the Chinese Anti-Monopoly Law by engaging in allegedly unlawful practices, including excessively high pricing, tying, discriminatory treatment, and imposing unreasonable trading conditions. ZTE originally sought relief in the amount of 20.0 million RMB (approximately $2.9 million based on the exchange rate as of December 31, 2018), an order

requiring InterDigital to cease the allegedly unlawful conduct and compensation for its litigation costs associated with this matter.

On August 7, 2014, InterDigital filed petitions challenging the jurisdiction of the Shenzhen Intermediate People's Court to hear the actions. On August 28, 2014, the court denied InterDigital’s jurisdictional challenge with respect to the anti-monopoly law case. InterDigital filed an appeal of this decision on September 26, 2014. On September 28, 2014, the court denied InterDigital’s jurisdictional challenge with respect to the FRAND case, and InterDigital filed an appeal of that decision on October 27, 2014. On December 18, 2014, the Guangdong High Court issued decisions on both appeals upholding the

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Shenzhen Intermediate Court's decisions that it had jurisdiction to hear these cases. On February 10, 2015, InterDigital filed a petition for retrial with the Supreme People's Court regarding its jurisdictional challenges to both cases.
The Shenzhen Court held hearings on the anti-monopoly law case on May 11, 13, 15 and 18, 2015. At the May hearings, ZTE withdrew its claims alleging discriminatory treatment and the imposition of unfair trading conditions and increased its damages claim to 99.8 million RMB (approximately $14.5 million based on the exchange rate as of December 31, 2018). The Shenzhen Court held hearings in the FRAND case on July 29-31, 2015 and held a second hearing on the anti-monopoly law case on October 12, 2015.
On September 18, 2018, ZTE independently filed a petition with the Shenzhen Court to withdraw the complaint in its FRAND case against InterDigital, and on September 28, 2018, the Shenzhen Court granted ZTE's petition and dismissed the FRAND case without prejudice. On October 25, 2018, ZTE independently filed a petition with the Shenzhen Court to withdraw the complaint in its anti-monopoly law case against InterDigital, and on October 26, 2018, the Shenzhen Court granted ZTE's petition and dismissed the anti-monopoly law case without prejudice.
Asustek Actions
On April 15, 2015, Asustek Computer Incorporated ("Asus") filed a complaint in the CA Northern District Court against InterDigital, Inc., and its subsidiaries InterDigital Communications, Inc., InterDigital Technology Corporation, IPR Licensing, Inc., and InterDigital Patent Holdings, Inc. The complaint asserted the following causes of action: violation of Section Two of the Sherman Act, violation of Section 17200 of the California Business and Professions Code, breach of contract resulting from ongoing negotiations, breach of contract leading to and resulting in the parties' April 2008 patent license agreement (the "2008 Asus PLA"), promissory estoppel, waiver, and fraudulent inducement to contract. Among other allegations, Asus alleged that InterDigital breached its FRAND commitment. As relief, Asus sought a judgment that the 2008 Asus PLA is void or unenforceable, damages in the amount of excess royalties Asus paid under the 2008 Asus PLA plus interest, a judgment setting the proper FRAND terms and conditions for InterDigital's patent portfolio, an order requiring InterDigital to grant Asus a license on FRAND terms and conditions, and punitive damages and other relief.
In response, on May 30, 2015, InterDigital filed an Arbitration Demand with the ICDR. InterDigital claimed that Asus breached the 2008 Asus PLA's dispute resolution provision by filing its CA Northern District Court lawsuit and sought declaratory relief that it is not liable for any of the claims in Asus's complaint. On June 2, 2015, InterDigital filed in the CA Northern District Court a motion to compel arbitration on each of Asus's claims. On August 25, 2015, the court granted InterDigital's motion for all of Asus's claims except its claim for breach of contract resulting from ongoing negotiations. Aside from this claim, the court ruled that the issue of arbitrability should be decided by an arbitrator, and stayed the proceedings pending that determination.
Asus asserted counterclaims in the arbitration that mirrored its CA Northern District Court claims, except that it did not assert the breach of contract claim that the court determined was not arbitrable and it added a claim of violation of the Delaware Consumer Fraud Act. Asus also contended that its counterclaims were not arbitrable. InterDigital added a claim for breach of the 2008 Asus PLA's confidentiality provision.
On July 14, 2016, Asus filed a motion to lift the stay in the CA Northern District Court proceeding along with a notice of the arbitral tribunal's decision on arbitrability, informing the court of the arbitrators' decision that, other than InterDigital's breach of contract claims and Asus's fraudulent inducement claim, no other claim or counterclaim is arbitrable. Asus then filed in the CA Northern District Court an amended complaint on August 18, 2016. This amended complaint includes all of the claims in Asus's first CA Northern District Court complaint except fraudulent inducement and adds a claim of violation of the Delaware Consumer Fraud Act. It seeks the same relief as its first CA Northern District Court complaint, but also seeks a ruling that each of InterDigital's patents "declared [to standards-setting organizations] to be essential or potentially essential" is unenforceable and any contracts InterDigital entered into in furtherance of its unlawful conduct are void. On September 8, 2016, InterDigital filed its answer and counterclaims to Asus's amended complaint. It denied Asus's claims and filed a counterclaim for declaratory judgment that Asus's tort claims are invalid or preempted as applied under the First Amendment to the U.S. Constitution, the Patent Clause of the U.S. Constitution, and Title 35 of the U.S. Code. On September 28, 2016, Asus answered and denied InterDigital's counterclaims.

With respect to its arbitration counterclaim for fraudulent inducement, Asus stated in its pleadings that it was seeking return of excess royalties (which totaled close to $63 million as of the August 2016 date referenced in the pleadings and had increased with additional royalty payments made by Asus since such time), plus interest, costs and attorneys' fees. The evidentiary hearing in the arbitration was held in January 2017, and the parties presented oral closing arguments on March 22, 2017. On August 2, 2017, the arbitral tribunal issued its Final Award. The tribunal fully rejected Asus's counterclaim, finding that InterDigital did not fraudulently induce Asus to enter into the 2008 Asus PLA. Accordingly, the tribunal dismissed Asus's fraudulent inducement counterclaim in its entirety. The tribunal also dismissed InterDigital's claims that Asus breached the confidentiality provisions and the dispute resolution provisions of the 2008 Asus PLA. On October 20, 2017, InterDigital and

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Asus jointly moved to confirm both the tribunal's Final Award and the Interim Award on Jurisdiction in the CA Northern District. The court confirmed both awards on October 25, 2017.
On April 16, 2018, InterDigital filed a motion in the CA Northern District Court proceeding for leave to amend its counterclaims to include a claim of intentional interference with contract. On June 12, 2018, the court denied this motion.
On April 17, 2018, the parties served opening expert reports in the CA Northern District Court proceeding. Asus's damages expert contends that Asus is currently owed damages in the amount of $75.9 million based on its claims that InterDigital charged royalties inconsistent with its FRAND commitments. Those damages, which represent a substantial portion of the royalties paid by Asus through third quarter 2017, do not reflect Asus's most recent royalty payments. Asus also seeks interest, costs and attorneys' fees, as well as, in connection with its Sherman Act claim, treble damages.
On August 16, 2018, the parties filed motions for summary judgment in the CA Northern District Court proceeding. The parties filed oppositions on September 13, 2018 and replies on September 27, 2018, and the court held an oral argument on October 11, 2018.
On December 20, 2018, the CA Northern District Court issued an order on the parties' motions for summary judgment. InterDigital's motion was granted in part and denied in part, and Asus's motion was denied in its entirety. The court: (1) granted summary judgment that Asus is judicially estopped from arguing that the 2008 Asus PLA is not FRAND compliant in light of Asus's prior inconsistent positions; (2) denied to the extent ruled on by the court InterDigital's motion that issue preclusion prevents Asus from re-litigating issues decided in the arbitration; (3) granted summary judgment that Asus cannot invalidate the 2008 Asus PLA on the theory that, even if FRAND when signed, the 2008 Asus PLA became non-FRAND thereafter; (4) denied InterDigital's motion for summary judgment that Asus's Sherman Act claim fails as a matter of law; and (5) granted summary judgment that Asus's promissory estoppel and California UCL claims fail as a matter of law. In addition, the court denied Asus's motion for summary judgment that, as a matter of law, InterDigital breached its contractual obligation to license its essential patents on FRAND terms and conditions by engaging in discriminatory licensing practices. On December 21, 2018, the court referred the case to a magistrate judge for a settlement conference. The settlement conference was held on February 14, 2019. A settlement was not reached. The trial in the CA Northern District Court proceeding is scheduled for May 6-17, 2019.
The Company has not recorded any accrual at December 31, 2018, for contingent losses associated with the CA Northern District Court Proceeding. While a material loss is reasonably possible, the Company cannot estimate the potential range of loss given the range of possible outcomes, as this matter is not at a sufficiently advanced stage to allow for such an estimate.

2019 Huawei China Proceeding
On January 3, 2019, InterDigital was notified that a civil complaint was filed on January 2, 2019, by Huawei Technologies Co., Ltd. and certain of its subsidiaries against InterDigital, Inc. and certain of its subsidiaries in the Shenzhen Intermediate People's Court. The complaint seeks a ruling that the InterDigital defendants have violated an obligation to license their patents that are essential to 3G, 4G and 5G wireless telecommunication standards on fair, reasonable and non-discriminatory terms and conditions. The complaint also seeks a determination of the terms for licensing all of the InterDigital defendants' Chinese patents that are essential to 3G, 4G and 5G wireless telecommunication standards to the Huawei plaintiffs for the plaintiffs' wireless terminal unit products made and/or sold in China from 2019 to 2023. InterDigital's patent license agreement with Huawei expired on December 31, 2018.
REGULATORY PROCEEDING
Investigation by National Development and Reform Commission of China
On September 23, 2013, counsel for InterDigital was informed by China's National Development and Reform Commission ("NDRC") that the NDRC had initiated a formal investigation into whether InterDigital has violated China's Anti-Monopoly Law ("AML") with respect to practices related to the licensing of InterDigital's standards-essential patents to Chinese companies. Companies found to violate the AML may be subject to a cease and desist order, fines and disgorgement of any illegal gains. On March 3, 2014, the Company submitted to NDRC, pursuant to a procedure set out in the AML, a formal application for suspension of the investigation that included proposed commitments by

the Company. On May 22, 2014, NDRC formally suspended its investigation of the Company based on the commitments proposed by the Company. The Company's commitments with respect to the licensing of its patent portfolio for wireless mobile standards to Chinese manufacturers of cellular terminal units ("Chinese Manufacturers") are as follows:

1. Whenever InterDigital engages with a Chinese Manufacturer to license InterDigital's patent portfolio for 2G, 3G and 4G wireless mobile standards, InterDigital will offer such Chinese Manufacturer the option of taking

a worldwide portfolio license of only its standards-essential wireless patents, and comply with F/RAND principles when negotiating and entering into such licensing agreements with Chinese Manufacturers.

2. As part of its licensing offer, InterDigital will not require that a Chinese Manufacturer agree to a royalty-free, reciprocal cross-license of such Chinese Manufacturer's similarly categorized standards-essential wireless patents.
3. Prior to commencing any action against a Chinese Manufacturer in which InterDigital may seek exclusionary or injunctive relief for the infringement of any of its wireless standards-essential patents, InterDigital will offer such Chinese Manufacturer the option to enter into expedited binding arbitration under fair and reasonable procedures to resolve the royalty rate and other terms of a worldwide license under InterDigital's wireless standards-essential patents. If the Chinese Manufacturer accepts InterDigital's binding arbitration offer or otherwise enters into an agreement with InterDigital on a binding arbitration mechanism, InterDigital will, in accordance with the terms of the arbitration agreement and patent license agreement, refrain from seeking exclusionary or injunctive relief against such company.

The commitments contained in item 3 above will expire five years from the effective date of the suspension of the investigation, or May 22, 2019. With the consolidation of China’s antimonopoly enforcement authorities into the State Administration for Market Regulation ("SAMR") in April 2018, SAMR is now responsible for overseeing InterDigital’s commitments.

USITC PROCEEDINGS AND RELATED DELAWARE DISTRICT COURT PROCEEDINGS

2013 USITC Proceeding (337-TA-868) and Related ZTE Delaware District Court Proceeding

USITC Proceeding (337-TA-868)

On January 2, 2013, the Company’s wholly owned subsidiaries InterDigital Communications, Inc., InterDigital Technology Corporation, IPR Licensing, Inc. and InterDigital Holdings, Inc. filed a complaint with the United States International Trade Commission (the “USITC” or “Commission”) against Samsung Electronics Co., Ltd., Samsung Electronics America, Inc. and Samsung Telecommunications America, LLC, Nokia Corporation and Nokia Inc., Huawei Technologies Co., Ltd., Huawei Device USA, Inc. and FutureWei Technologies, Inc. d/b/a Huawei Technologies (USA) and ZTE Corporation and ZTE (USA) Inc. (collectively, the “337-TA-868 Respondents”), alleging violations of Section 337 of the Tariff Act of 1930 in that they engaged in unfair trade practices by selling for importation into the United States, importing into the United States and/or selling after importation into the United States certain 3G and 4G wireless devices (including WCDMA-, cdma2000- and LTE-capable mobile phones, USB sticks, mobile hotspots, laptop computers and tablets and components of such devices) that infringe one or more of up to seven of InterDigital’s U.S. patents. The complaint also extended to certain WCDMA and cdma2000 devices incorporating Wi-Fi functionality. InterDigital’s complaint with the USITC sought an exclusion order that would bar from entry into the United States infringing 3G or 4G wireless devices (and components), including LTE devices, that are imported by or on behalf of the 337-TA-868 Respondents, and also sought a cease-and-desist order to bar further sales of infringing products that have already been imported into the United States. Certain of the asserted patents were also asserted against Nokia, Huawei and ZTE in earlier pending USITC proceedings (including the Nokia, Huawei and ZTE 2011 USITC Proceeding (337-TA-800) and the Nokia 2007 USITC Proceeding (337-TA-613), as set forth below) and therefore were not asserted against those 337-TA-868 Respondents in this investigation.

On December 23, 2013, InterDigital and Huawei reached a settlement agreement to enter into binding arbitration to resolve their global patent licensing disputes. Pursuant to the settlement agreement, InterDigital and Huawei moved to dismiss all litigation matters pending between the parties except the action filed by Huawei in China to set a fair, reasonable and non-discriminatory (“FRAND”) rate for the licensing of InterDigital’s Chinese standards-essential patents (discussed above under “Huawei China Proceedings”), the decision in which InterDigital is permitted to further appeal. As a result, effective February 12, 2014, the Huawei Respondents were terminated from the 337-TA-868 investigation.

From February 10 to February 20, 2014, ALJ Essex presided over the evidentiary hearing in this investigation. The patents in issue in this investigation as of the hearing were U.S. Patent Nos. 7,190,966 (the “’966 patent”) and 7,286,847 (the “’847 patent”) asserted against ZTE and Samsung, and U.S. Patent No. 7,941,151 (the “’151 patent”) asserted against ZTE, Samsung and Nokia.

On June 3, 2014, InterDigital and Samsung filed a joint motion to terminate the investigation as to Samsung on the basis of settlement. The ALJ granted the joint motion by initial determination issued on June 9, 2014, and the USITC determined not to review the initial determination on June 30, 2014.

On June 13, 2014, the ALJ issued an Initial Determination ("ID") in the 337-TA-868 investigation. In the ID, the ALJ found that no violation of Section 337 had occurred in connection with the importation of 3G/4G devices by ZTE or Nokia, on

the basis that the accused devices do not infringe asserted claims 1-6, 8-9, 16-21 or 23-24 of the ’151 patent, claims 1, 3, 6, 8, 9, or 11 of the ’966 patent, or claims 3 or 5 of the ’847 patent. The ALJ also found that claim 16 of the ’151 patent was invalid as indefinite. Among other determinations, the ALJ further determined that InterDigital did not violate any FRAND obligations, a conclusion also reached by the ALJ in the 337-TA-800 investigation, and that Respondents have engaged in patent “hold out.”

On June 30, 2014, InterDigital filed a Petition for Review with the USITC seeking review and reversal of certain of the ALJ’s conclusions in the ID. On the same day, Respondents filed a Conditional Petition for Review urging alternative grounds for affirmance of the ID’s finding that Section 337 was not violated and a Conditional Petition for Review with respect to FRAND issues.
In June 2014, Microsoft Mobile Oy (“MMO”) was added as a respondent in the investigation.
On August 14, 2014, the Commission determined to review in part the June 13, 2014 ID but terminated the investigation with a finding of no violation.
On October 10, 2014, InterDigital filed a petition for review with the U.S. Court of Appeals for the Federal Circuit (the “Federal Circuit”), appealing certain of the adverse determinations in the Commission’s August 8, 2014 final determination including those related to the ’966 and ’847 patents. On June 2, 2015, InterDigital moved to voluntarily dismiss the Federal Circuit appeal, because, even if it were to prevail, it did not believe there would be sufficient time following the court’s decision and mandate for the USITC to complete its proceedings on remand such that the accused products would be excluded before the ’966 and ’847 patents expire in June 2016. The court granted the motion and dismissed the appeal on June 18, 2015.

Related Delaware District Court Proceeding
On January 2, 2013, the Company’s wholly owned subsidiaries InterDigital Communications, Inc., InterDigital Technology Corporation, IPR Licensing, Inc. and InterDigital Holdings, Inc. filed four related district court actions in the Delaware District Court against the 337-TA-868 Respondents. The proceedings against Huawei, Samsung and Nokia were subsequently dismissed, as discussed below. The remaining complaint alleges that ZTE infringes the same patents with respect to the same products alleged in the complaint filed by InterDigital in USITC Proceeding (337-TA-868). The complaint seeks a permanent injunction and compensatory damages in an amount to be determined, as well as enhanced damages based on willful infringement, and recovery of reasonable attorneys’ fees and costs.
On January 31, 2013, ZTE filed its answer and counterclaims to InterDigital’s Delaware District Court complaint; ZTE asserted counterclaims for breach of contract, equitable estoppel, waiver of right to enjoin and declarations that InterDigital has not offered ZTE licenses on FRAND terms, declarations seeking the determination of FRAND terms and declarations of noninfringement, invalidity and unenforceability. In addition to the declaratory relief specified in its counterclaims, ZTE seeks specific performance of InterDigital's purported contracts with ZTE and standards-setting organizations, appropriate damages in an amount to be determined at trial, reasonable attorneys’ fees and such other relief as the court may deem appropriate.
On March 21, 2013, pursuant to stipulation, the Delaware District Court granted InterDigital leave to file an amended complaint against ZTE to assert allegations of infringement of the ’244 patent. On March 22, 2013, ZTE filed its answer and counterclaims to InterDigital’s amended Delaware District Court complaint. On April 9, 2013, InterDigital filed a motion to dismiss ZTE’s counterclaims relating to its FRAND allegations. On July 12, 2013, the Delaware District Court held a hearing on InterDigital’s motion to dismiss. By order issued the same day, the Delaware District Court granted InterDigital’s motion, dismissing ZTE's counterclaims for equitable estoppel and waiver of the right to injunction or exclusionary relief with prejudice. It further dismissed the counterclaims for breach of contract and declaratory relief related to InterDigital’s FRAND commitments with leave to amend.
On August 6, 2013, ZTE filed its answer and amended counterclaims for breach of contract and for declaratory judgment seeking determination of FRAND terms. The counterclaims also continue to seek declarations of noninfringement, invalidity, and unenforceability. On August 30, 2013, InterDigital filed a motion to dismiss the declaratory judgment counterclaim relating to the request for determination of FRAND terms. On May 28, 2014, the

court granted InterDigital’s motion and dismissed ZTE's FRAND-related declaratory judgment counterclaim, ruling that such declaratory judgment would serve no useful purpose.

On December 30, 2013, InterDigital and Huawei filed a stipulation of dismissal on account of the confidential settlement agreement and agreement to arbitrate their disputes in this action. On the same day, the Delaware District Court granted the stipulation of dismissal and dismissed the action against Huawei.

On February 11, 2014, the Delaware District Court judge entered an InterDigital, Nokia, and ZTE stipulated Amended Scheduling Order that bifurcated issues relating to damages, FRAND-related affirmative defenses, and any FRAND-related counterclaims.
On August 28, 2014, the court granted in part a motion by InterDigital for summary judgment that the asserted ’151 patent is not unenforceable by reason of inequitable conduct, holding that only one of the references forming the basis of defendants’ allegations would remain in issue, and granted a motion by InterDigital for summary judgment that the asserted claims of the ’966 and ’847 patents are not invalid for lack of enablement.
On August 5, 2014, InterDigital and Samsung filed a stipulation of dismissal in light of the parties’ settlement agreement. On the same day, the court granted the stipulation of dismissal and dismissed the action against Samsung with prejudice.
By order dated August 28, 2014, MMO was joined in the case against Nokia as a defendant.
The ZTE trial addressing infringement and validity of the ’966, ’847, ’244 and ’151 patents was held from October 20 to October 27, 2014. During the trial, the judge determined that further construction of certain claim language of the ’151 patent was required, and the judge decided to hold another trial as to ZTE's infringement of the ’151 patent at a later date. On October 28, 2014, the jury returned a unanimous verdict in favor of InterDigital, finding that the ’966, ’847 and ’244 patents are all valid and infringed by ZTE 3G and 4G cellular devices. The court issued formal judgment to this effect on October 29, 2014.
On November 26, 2014, ZTE filed a motion for judgment as a matter of law that the asserted claims of the ’966, ’847 and ’244 patents are not infringed and, in the alternative, for a new trial. InterDigital filed an opposition on December 15, 2014, and ZTE filed a reply on January 7, 2015.
The ZTE trial addressing infringement of the ’151 patent was held from April 20 to April 22, 2015. On April 22, 2015, the jury returned a verdict in favor of ZTE, finding that the ’151 patent is not infringed by ZTE 3G and 4G cellular devices.
On May 29, 2015, the court entered a new scheduling order for damages and FRAND-related issues, scheduling the ZTE trial related to damages and FRAND-related issues for October 2016.
On September 14, 2015, a panel of Administrative Law Judges of the United States Patent and Trademark Office Patent Trial and Appeal Board (the “PTAB”) issued a final written decision in two Inter Partes Review (“IPR”) cases concerning the ’244 patent. These IPR proceedings were commenced on petitions filed by ZTE Corporation and ZTE (USA) Inc. and by Microsoft Corporation, respectively. Specifically, the panel determined that a number of claims of the ’244 patent are unpatentable as obvious. IPR Licensing, Inc. appealed to the Federal Circuit seeking review of the PTAB’s decision. Oral argument in the appeal was heard on April 7, 2017. On April 20, 2017, the Federal Circuit affirmed the PTAB’s decision that most of the challenged claims of the ’244 patent are unpatentable as obvious. However, the court vacated and remanded the PTAB’s obviousness finding as to claim 8, which returned the matter to the PTAB for further proceedings as to that claim. On July 28, 2017, IPR Licensing, Inc., filed a petition for a writ of certiorari with the U.S. Supreme Court seeking to appeal the Federal Circuit decision, arguing that the petition should be held pending the Supreme Court’s decision in Oil States Energy Services, LLC v. Greene’s Energy Group, LLC, which will determine whether the IPR process as a whole is unconstitutional. On October 2, 2017, ZTE filed a response to the petition for a writ of certiorari in which ZTE agreed that the petition should be held pending the Court’s decision in Oil States and then disposed of as appropriate in light of that decision. On April 24, 2018, the Supreme Court rejected the petitioner’s constitutional challenge to the IPR process in the Oil States case, and on April 30, 2018 denied IPR Licensing, Inc.’s July 28, 2017 petition for a writ of certiorari. On March 6, 2018, in the PTAB remand proceeding, the PTAB again found claim 8 to be invalid. On April 10, 2018, IPR Licensing, Inc. appealed to the Federal Circuit seeking review of the PTAB’s decision. That appeal (the “’244 patent PTAB remand appeal”) remains pending.
On December 21, 2015, the court entered another scheduling order that vacated the October 2016 date for the ZTE trial related to damages and FRAND-related issues as set forth in the May 2015 scheduling order.
On March 18, 2016, the court denied ZTE’s motion for judgment as a matter of law, or in the alternative for a new trial, with respect to the ’966 and ’847 patents. The court postponed its ruling on ZTE’s motion as to the ’244 patent pending the Federal Circuit’s decision on InterDigital’s appeal of the September 14, 2015 PTAB ruling and

administratively closed that portion of the motion.
On April 18, 2016, ZTE filed a stipulated request for dismissal with prejudice of its counterclaims for breach of contract and patent unenforceability based on FRAND and withdrew its corresponding FRAND-related affirmative defenses.

The court granted this request the same day. Also on April 18, 2016, ZTE filed a motion under Federal Rule of Civil Procedure 54(b) seeking certification of partial final judgment on the claims for infringement of the ’966 and ’847 patents to allow ZTE to file an immediate appeal as to those patents. The motion was granted on June 7, 2016, and a partial final judgment was entered on June 20, 2016. On July 18, 2016, ZTE filed its notice of appeal with the Federal Circuit regarding the Delaware District Court’s judgment against ZTE with respect to the ’966 and ’847 patents. Oral argument on ZTE’s appeal was heard on October 4, 2017. On November 3, 2017, the Federal Circuit issued its decision affirming the Delaware District Court judgment finding that the ’966 and ’847 patents are not invalid and are infringed by ZTE 3G and 4G cellular devices. On December 4, 2017, ZTE filed a petition for panel rehearing of the Federal Circuit’s decision. The Federal Circuit denied ZTE’s petition on December 20, 2017, and the court’s mandate issued on December 27, 2017.

On May 15, 2017, InterDigital and Nokia/MMO filed a stipulation of dismissal of the case against MMO, Nokia Corporation and Nokia, Inc. pursuant to a Settlement Agreement and Release of Claims among InterDigital, Microsoft Corporation, Microsoft Mobile, Inc., and MMO, dated May 9, 2017, (the “Microsoft Settlement Agreement”). On May 16, 2017, the Delaware District Court granted the stipulation and dismissed the case against MMO, Nokia Corporation and Nokia, Inc. with prejudice.

The case against ZTE remains pending. On January 16, 2018, InterDigital and ZTE filed a joint status report that informed the court of the Federal Circuit’s decision regarding the ’966 and ’847 patents and that the PTAB proceedings regarding the ’244 patent remained pending. The parties jointly requested that the case remain stayed so that the portion of the case related to damages potentially owed by ZTE as to the three patents-in-suit may be coordinated. The court granted this request on January 17, 2018. The case remains stayed pending the conclusion of the 244 patent PTAB remand appeal, including any further proceeding.

2011 USITC Proceeding (337-TA-800) and Related ZTE Delaware District Court Proceeding

USITC Proceeding (337-TA-800)

On July 26, 2011, InterDigital’s wholly owned subsidiaries InterDigital Communications, LLC (now InterDigital Communications, Inc.), InterDigital Technology Corporation and IPR Licensing, Inc. filed a complaint with the USITC against Nokia Corporation and Nokia Inc., Huawei Technologies Co., Ltd. and FutureWei Technologies, Inc. d/b/a Huawei Technologies (USA) and ZTE Corporation and ZTE (USA) Inc. (collectively, the “337-TA-800 Respondents”), alleging violations of Section 337 of the Tariff Act of 1930 in that they engaged in unfair trade practices by selling for importation into the United States, importing into the United States and/or selling after importation into the United States certain 3G wireless devices (including WCDMA- and cdma2000-capable mobile phones, USB sticks, mobile hotspots and tablets and components of such devices) that infringe several of InterDigital’s U.S. patents. The action also extended to certain WCDMA and cdma2000 devices incorporating WiFi functionality. InterDigital’s complaint with the USITC sought an exclusion order that would bar from entry into the United States any infringing 3G wireless devices (and components) that are imported by or on behalf of the 337-TA-800 Respondents, and also sought a cease-and-desist order to bar further sales of infringing products that have already been imported into the United States. In May 2012, Huawei Device USA, Inc. was added as a 337-TA-800 Respondent.

The ALJ held an evidentiary hearing from February 12-21, 2013. The patents in issue as of the hearing were U.S. Patent Nos. 8,009,636 (the “’636 patent”), 7,706, 830 (the “’830 patent”), 7,502,406 (the “’406 patent”), 7,616,970 (the “’970 patent”), 7,706,332 (the “’332 patent”), 7,536,013 (the “’013 patent”) and 7,970,127 (the “’127 patent”). The ALJ’s Initial Determination (“ID”) issued on June 28, 2013, finding no violation because the asserted patents were not infringed and/or invalid. Among other determinations, with respect to the 337-TA-800 Respondents’ FRAND and other equitable defenses, the ALJ found that Respondents had failed to prove either that InterDigital violated any FRAND obligations, that InterDigital failed to negotiate in good faith, or that InterDigital’s licensing offers were discriminatory. The ALJ also found that InterDigital is not precluded from seeking injunctive relief based on any alleged FRAND commitments.

Petitions for review of the ID to the Commission were filed by InterDigital and the 337-TA-800 Respondents on July 15, 2013. On September 4, 2013, the Commission determined to review the ID in its entirety.

On December 19, 2013, the Commission issued its final determination. The Commission adopted, with some modification, the ALJ's finding of no violation of Section 337 as to Nokia, Huawei, and ZTE. The Commission did not rule on any other issue, including FRAND and domestic industry, and stated that all other issues remain under review. On December 20, 2013, InterDigital filed in the Federal Circuit a petition for review seeking reversal of the Commission's final determination. On February 18, 2015, the Federal Circuit issued a decision affirming the USITC's determinations that the claims of the '830, '636, '406 and '332 patents were not infringed, that the claims of the '970 patent are invalid, and that the Respondents did not violate Section 337. On April 6, 2015, InterDigital filed a combined petition for panel

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rehearing and rehearing en banc as to the ’830 and ’636 patents. The petition was denied on May 12, 2015, and the court’s mandate issued on May 19, 2015.

Related Delaware District Court Proceeding

On July 26, 2011, the same date that InterDigital filed USITC Proceeding (337-TA-800), it filed a parallel action in the United States District Court for the District of Delaware against the 337-TA-800 Respondents alleging infringement of the same asserted patents identified in USITC Proceeding (337-TA-800). The Delaware District Court complaint seeks a permanent injunction and compensatory damages in an amount to be determined, as well as enhanced damages based on willful infringement, and recovery of reasonable attorneys' fees and costs. On September 23, 2011, the defendants in the Delaware District Court complaint filed a motion to stay the Delaware District Court action pending the parallel proceedings in the USITC. Because the USITC has instituted USITC Proceeding (337-TA-800), the defendants have a statutory right to a mandatory stay of the Delaware District Court proceeding pending a final determination in the USITC. On October 3, 2011, InterDigital amended the Delaware District Court complaint, adding LG as a defendant and adding the same additional patent that InterDigital requested be added to USITC Proceeding (337-TA-800). On October 11, 2011, the Delaware District Court granted the defendants' motion to stay. The case is currently stayed through March 11, 2019.

On January 14, 2014, InterDigital and Huawei filed a stipulation of dismissal of their disputes in this action on account of the confidential settlement agreement mentioned above. On the same day, the Delaware District Court granted the stipulation of dismissal.

On May 15, 2017, InterDigital and Nokia filed a stipulation of dismissal of their dispute pursuant to the Microsoft Settlement Agreement discussed above. On May 16, 2017, the Delaware District Court granted the stipulation and dismissed the case with prejudice with respect to Nokia Corporation and Nokia Inc.

In December 2017, InterDigital entered into a patent license agreement with LG, pursuant to which the parties agreed to terms for dismissal by InterDigital of the outstanding litigation among the parties and their affiliates. Accordingly, on December 5, 2017, InterDigital and LG filed a stipulation of dismissal of the case against LG. On the same day, the Delaware District Court granted the stipulation and dismissed the case against LG with prejudice.

The case remains pending with respect to ZTE.

OTHER

We are party to certain other disputes and legal actions in the ordinary course of business, including arbitrations and legal proceedings with licensees regarding the terms of their agreements and the negotiation thereof. We do not currently believe that these matters, even if adversely adjudicated or settled, would have a material adverse effect on our financial condition, results of operations or cash flows. None of the preceding matters have met the requirements for accrual or disclosure of a potential range as of December 31, 2018.

Item 4. MINE SAFETY DISCLOSURES.

Not applicable.

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PART II

Item 5. MARKET FOR REGISTRANT’S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES.

Market Information

The NASDAQ Stock Market (“NASDAQ”) is the principal market for our common stock, which is traded under the symbol "IDCC."

Holders

As of February 19, 2019, there were 528 holders of record of our common stock.

Dividends

Cash dividends on outstanding common stock declared in 2018 and 2017 were as follows (in thousands, except per share data):

2018	Per Share	Total	Cumulative by Fiscal Year
First quarter	$0.35	$12,124	$ 12,124
Second quarter	0.35	12,192	24,316
Third quarter	0.35	11,996	36,312
Fourth quarter	0.35	11,610	47,922
	$1.40	$47,922	
2017			
First quarter	$0.30	$10,404	$ 10,404
Second quarter	0.30	10,413	20,817
Third quarter	0.35	12,149	32,966
Fourth quarter	0.35	12,156	45,122
	$1.30	$45,122	

In September 2017, we announced that our Board of Directors had approved an increase in the Company’s quarterly cash dividend to $0.35 per share. We currently expect to continue to pay dividends comparable to our quarterly $0.35 per share cash dividend in the future; however, continued payment of cash dividends and changes in the Company's dividend policy will depend on the Company's earnings, financial condition, capital resources and capital requirements, alternative uses of capital, restrictions imposed by any existing debt, economic conditions and other factors considered relevant by our Board of Directors.

Performance Graph

The following graph compares five-year cumulative total returns of the Company, the NASDAQ Composite Index and the NASDAQ Telecommunications Stock Index. The graph assumes $100 was invested in the common stock of InterDigital and each index as of December 31, 2013 and that all dividends were re-invested. Such returns are based on historical results and are not intended to suggest future performance.

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	12/13	12/14	12/15	12/16	12/17	12/18
InterDigital, Inc.	100.00	182.23	171.55	324.52	274.71	243.89
NASDAQ Composite	100.00	114.62	122.81	133.19	172.11	165.84
NASDAQ Telecommunications	100.00	102.75	100.20	106.61	130.48	130.76

The above performance graph shall not be deemed "filed" for purposes of Section 18 of the Exchange Act, or incorporated by reference into any filing of InterDigital under the Securities Act of 1933, as amended, or the Exchange Act, except as shall be expressly set forth by specific reference in such filing.

Issuer Purchases of Equity Securities

Repurchase of Common Stock

The following table provides information regarding Company purchases of its common stock during fourth quarter 2018.

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Period	Total Number of Shares (or Units) Purchased (1)	Average Price Paid Per Share (or Unit)	Total Number of Shares (or Units) Purchases as Part of Publicly Announced Plans or Programs (2)	Maximum Number (or Approximate Dollar Value) of Shares (or Units) That May Yet Be Purchased Under the Plans or Programs (3)
October 1, 2018 - October 31, 2018	548,510	$ 73.35	548,510	$ 94,835,635
November 1, 2018 - November 30, 2018	114,936	$ 70.55	114,936	$ 86,724,726
December 1, 2018 - December 31, 2018	265,942	$ 70.08	265,942	$ 168,082,465
Total	929,388	$ 72.07	929,388	$ 168,082,465

(1) Total number of shares purchased during each period reflects share purchase transactions that were completed (i.e., settled) during the period indicated.
(2) Shares were purchased pursuant to the Company's $600 million share repurchase program (the "2014 Repurchase Program"), $300 million of which was authorized by the Company's Board of Directors in June 2014, with an additional $100 million authorized by the Company's Board of Directors in each of June 2015, September 2017, and December 2018, respectively. The 2014 Repurchase Program has no expiration date. The Company may repurchase shares under the 2014 Repurchase Program through open market purchases, pre-arranged trading plans, or privately negotiated purchases.
(3) Amounts shown in this column reflect the amounts remaining under the 2014 Repurchase Program.

Item 6. SELECTED FINANCIAL DATA.

The following data should be read in conjunction with the Consolidated Financial Statements, related Notes and other financial information contained in this Form 10-K. As discussed above, we adopted new revenue guidance, ASC 606, effective January 1, 2018 using the modified retrospective method. As such, revenue and other related accounts are presented in accordance with ASC 606 for the year ended December 31, 2018 and in accordance with ASC 605 for all prior periods presented. Refer to Note 3, "Revenue Recognition," within the consolidated financial statements for further information regarding our adoption of ASC 606.

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	2018	2017	2016	2015	2014
	(in thousands except per share data)				
Consolidated statements of operations data:					
Revenues (a)	$307,404	$532,938	$665,854	$2,496	$216,418

The equity securities noted above consist of short-duration, high-yield-bond mutual funds.

Income on investment securities included $961,000 in taxable interest income, $114,000 in non-taxable interest income and $73,000 in dividend income for the three months ended March 31, 2016, as compared to taxable interest income of $648,000, non-taxable interest income of $90,000 and dividend income of $54,000 for the three months ended March 31, 2015.

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As of March 31, 2016, the contractual maturities of the debt securities are:

	March 31, 2016			
	Available-for-Sale		Held-to-Maturity	
(Dollars in thousands)	Amortized Cost	Estimated Fair Value	Amortized Cost	Estimated Fair Value
Due in one year or less	$21,990	$21,985	$—	$—
Due from one to five years	44,691	44,968	13,308	13,918
Due from five to ten years	9,717	9,589	32,522	32,931
Due after ten years	104,718	102,127	1,426	1,495
Total debt securities	$181,116	$178,669	$47,256	$48,344

Included in the $102.1 million fair value of debt securities available-for-sale with a contractual maturity due after ten years as of March 31, 2016, were $89.7 million, or 87.9%, in floating-rate securities. Included in the $32.5 million amortized cost of debt securities held-to-maturity with a contractual maturity due from five to ten years as of March 31, 2016, were $8.0 million that have call provisions in one to five years that would either mature, if called, or become floating-rate securities after the call date.

Prepayments may shorten the contractual lives of the collateralized mortgage obligations, mortgage-backed securities and collateralized loan obligations.

Proceeds from the sale of investment securities available-for-sale during the three months ended March 31, 2016 and 2015, were $681,000 and $9.7 million, respectively. Gross gains of $1,000 and $34,000 were realized on these sales and reclassified out of accumulated other comprehensive income (loss) during the three months ended March 31, 2016 and 2015, respectively. There were no gross losses realized during the three months ended March 31, 2016 and $17,000 in gross losses realized during the three months ended March 31, 2015 on investment securities available-for-sale.

Investment securities available-for-sale of $6.1 million, as of March 31, 2016, were held in safekeeping at the FHLB and were included in the calculation of borrowing capacity.

The following tables show the fair value and gross unrealized losses on temporarily impaired investment securities available-for-sale and held-to-maturity, by investment category and length of time that the individual securities have been in a continuous unrealized loss position as of March 31, 2016 and December 31, 2015, respectively:

	March 31, 2016					
	Less than 12 Months		12 Months or More		Total	
(Dollars in thousands)	Fair value	Unrealized losses	Fair value	Unrealized losses	Fair value	Unrealized losses
Investment securities available-for-sale:						
Corporate bonds	$11,422	$ 76	$15,519	$ 49	$26,941	$ 125
Trust preferred securities	7,206	1,355	8,093	959	15,299	2,314
Non-agency mortgage-backed securities	—	—	5,712	40	5,712	40
Non-agency collateralized loan obligations	11,488	215	—	—	11,488	215
Agency collateralized mortgage obligations	25,021	272	11,358	143	36,379	415
Agency mortgage-backed securities	1,757	23	6,855	11	8,612	34
Agency debentures	4,676	53	—	—	4,676	53
Equity securities	—	—	7,869	564	7,869	564
Total investment securities available-for-sale	61,570	1,994	55,406	1,766	116,976	3,760

Investment securities held-to-maturity:						
Corporate bonds	5,409	91	—	—	5,409	91
Total investment securities held-to-maturity	5,409	91	—	—	5,409	91
Total temporarily impaired securities	$66,979	$ 2,085	$55,406	$ 1,766	$122,385	$ 3,851

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(Dollars in thousands)	December 31, 2015 Less than 12 Months		12 Months or More		Total	
	Fair value	Unrealized losses	Fair value	Unrealized losses	Fair value	Unrealized losses
Investment securities available-for-sale:						
Corporate bonds	$23,582	$ 155	$6,460	$ 82	$30,042	$ 237
Trust preferred securities	8,076	471	8,526	507	16,602	978
Non-agency mortgage-backed securities	—	—	5,743	13	5,743	13
Non-agency collateralized loan obligations	9,859	132	—	—	9,859	132
Agency collateralized mortgage obligations	25,566	151	11,836	114	37,402	265
Agency mortgage-backed securities	1,469	15	10,811	172	12,280	187
Equity securities	—	—	7,759	599	7,759	599
Total investment securities available-for-sale	68,552	924	51,135	1,487	119,687	2,411
Investment securities held-to-maturity:						
Corporate bonds	9,863	84	—	—	9,863	84
Municipal bonds	571	1	—	—	571	1
Total investment securities held-to-maturity	10,434	85	—	—	10,434	85
Total temporarily impaired securities	$78,986	$ 1,009	$51,135	$ 1,487	$130,121	$ 2,496

The change in the fair values of our municipal bonds, agency collateralized mortgage obligation and agency mortgage-backed securities are primarily the result of interest rate fluctuations. To assess for impairment on municipal bonds, corporate bonds, single-issuer trust preferred securities, non-agency mortgage-backed securities, non-agency collateralized loan obligations and certain equity securities, management evaluates the underlying issuer’s financial performance and the related credit rating information through a review of publicly available financial statements and other publicly available information. This review did not identify any issues related to the ultimate repayment of principal and interest on these securities. In addition, the Company has the ability and intent to hold the securities in an unrealized loss position until recovery of their amortized cost. Based on this, the Company considers all of the unrealized losses to be temporary impairment losses. Within the available-for-sale portfolio, there were 31 positions, aggregating to $3.8 million in unrealized losses that were temporarily impaired as of March 31, 2016, of which 13 positions were in an unrealized loss position for more than twelve months totaling $1.8 million. As of December 31, 2015, there were 36 positions, aggregating to $2.4 million in unrealized losses that were temporarily impaired, of which 14 positions were in an unrealized loss position for more than twelve months totaling $1.5 million. Within the held-to-maturity portfolio, there were three positions, aggregating to $91,000 in unrealized losses that were temporarily impaired as of March 31, 2016, of which no positions were in an unrealized loss position for more than twelve months. As of December 31, 2015, there were six positions, aggregating to $85,000 in unrealized losses that were temporarily impaired, of which no positions were in an unrealized loss position for more than twelve months.

There were no investment securities classified as trading securities outstanding as of March 31, 2016 and December 31, 2015, respectively. There was no activity in investment securities classified as trading during the three months ended March 31, 2016 and 2015.

[3] LOANS

We generate loans through our middle-market and private banking channels. These channels provide risk diversification and offer significant growth opportunities. The middle-market banking channel consists of our commercial and industrial (“C&I”) and commercial real estate (“CRE”) loan portfolios that serve middle-market businesses and real estate developers. The private banking channel includes loans secured by cash, marketable securities and other asset-based loans to executives, high-net-worth individuals, trusts and businesses, many of whom

we source through referral relationships with independent broker/dealers, wealth managers, family offices, trust companies and other financial intermediaries.

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Loans held-for-investment were comprised of the following:

	March 31, 2016			
(Dollars in thousands)	Commercial and Industrial	Commercial Real Estate	Private Banking	Total
Loans held-for-investment, before deferred fees	$612,576	$917,903	$1,366,157	$2,896,636
Deferred loan (fees) costs	(304)	(2,543)	2,814	(33)
Loans held-for-investment, net of deferred fees	612,272	915,360	1,368,971	2,896,603
Allowance for loan losses	(11,464)	(5,666)	(1,416)	(18,546)
Loans held-for-investment, net	$600,808	$909,694	$1,367,555	$2,878,057

	December 31, 2015			
(Dollars in thousands)	Commercial and Industrial	Commercial Real Estate	Private Banking	Total
Loans held-for-investment, before deferred fees	$634,857	$864,863	$1,341,988	$2,841,708
Deferred loan (fees) costs	(625)	(2,675)	2,876	(424)
Loans held-for-investment, net of deferred fees	634,232	862,188	1,344,864	2,841,284
Allowance for loan losses	(11,064)	(5,344)	(1,566)	(17,974)
Loans held-for-investment, net	$623,168	$856,844	$1,343,298	$2,823,310

The Company’s customers have unused loan commitments. Often these commitments are not fully utilized and therefore the total amount does not necessarily represent future cash requirements. The amount of unfunded commitments, including standby letters of credit, as of March 31, 2016 and December 31, 2015, was $1.34 billion and $1.27 billion, respectively. The interest rate for each commitment is based on the prevailing market conditions at the time of funding. The lending commitment maturities as of March 31, 2016, were as follows: $1.01 billion in one year or less; $195.2 million in one to three years; and $140.5 million in greater than three years. The reserve for losses on unfunded commitments was $578,000 and $546,000 as of March 31, 2016 and December 31, 2015, respectively, which includes reserves for probable losses on unfunded loan commitments, including standby letters of credit and also risk participations.

Included in the unfunded commitment totals listed above, were loans in the process of origination totaling approximately $48.7 million and $31.1 million as of March 31, 2016 and December 31, 2015, respectively, which extend over varying periods of time.

The Company issues standby letters of credit in the normal course of business. Standby letters of credit are conditional commitments issued to guarantee the performance of a customer to a third party. Standby letters of credit generally are contingent upon the failure of the customer to perform according to the terms of the underlying contract with the third party. The Company would be required to perform under the standby letters of credit when drawn upon by the guaranteed party in the case of non-performance by the Company’s customer. Collateral may be obtained based on management’s credit assessment of the customer. The amount of unfunded commitments related to standby letters of credit as of March 31, 2016 and December 31, 2015, included in the total listed above, was $85.8 million and $89.9 million, respectively. Should the Company be obligated to perform under the standby letters of credit the Company will seek recourse from the customer for reimbursement of amounts paid. As of March 31, 2016, $36.5 million in standby letters of credit will expire within one year, while the remaining standby letters of credit will expire in periods greater than one year. During the three months ended March 31, 2016, there was one draw on a standby letter of credit totaling $100,000, which was immediately repaid by the borrower. During the three months ended March 31, 2015, there were no draws on standby letters of credit. Most of these commitments are expected to expire without being drawn upon and the total amount does not necessarily represent future cash requirements. The probable liability for

losses on standby letters of credit was included in the reserve for losses on unfunded commitments.

The Company has entered into risk participation agreements with financial institution counterparties for interest rate swaps related to loans in which we are a participant. The risk participation agreements provide credit protection to the financial institution counterparties should the customers fail to perform on their interest rate derivative contracts. The potential liability for outstanding obligations was included in the reserve for losses on unfunded commitments.

[4] ALLOWANCE FOR LOAN LOSSES

Our allowance for loan losses represents our estimate of probable loan losses inherent in the loan portfolio at a specific point in time. This estimate includes losses associated with specifically identified loans, as well as estimated probable credit losses inherent in the remainder of the loan portfolio. Additions are made to the allowance through both periodic provisions charged to income and recoveries of losses previously incurred. Reductions to the allowance occur as loans are charged off or when the credit history of any of the three

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loan portfolios improves. Management evaluates the adequacy of the allowance quarterly, and in doing so relies on various factors including, but not limited to, assessment of historical loss experience, delinquency and non-accrual trends, portfolio growth, underlying collateral coverage and current economic conditions. This evaluation is subjective and requires material estimates that may change over time. In addition, management evaluates the overall methodology for the allowance for loan losses on an annual basis. The calculation of the allowance for loan losses takes into consideration the inherent risk identified within each of the Company's three primary loan portfolios, commercial and industrial, commercial real estate and private banking. In addition, management takes into account the historical loss experience of each loan portfolio, to ensure that the resultant allowance for loan losses is sufficient to cover probable losses inherent in such loan portfolios. Refer to Note 1, Summary of Significant Accounting Policies, for more details on the Company's allowance for loan losses policy.

The following discusses key characteristics and risks within each primary loan portfolio:

Middle-Market Banking: Commercial and Industrial Loans. This loan portfolio primarily includes loans made to service companies or manufacturers generally for the purpose of production, operating capacity, accounts receivable, inventory or equipment financing, acquisitions and recapitalizations. Cash flow from the borrower's operations is the primary source of repayment for these loans, except for certain commercial loans that are secured by cash and marketable securities.

The industry of the borrower is an important indicator of risk, but there are also more specific risks depending on the condition of the local/regional economy. Collateral for these types of loans at times does not have sufficient value in a distressed or liquidation scenario to satisfy the outstanding debt. Any C&I loans collateralized by cash and marketable securities are treated the same as private banking loans for purposes of the allowance for loan loss calculation. In addition, shared national credit loans that also involve a private equity sponsor are combined as a homogeneous group and evaluated separately based on the historical loss trend of such loans.

Middle-Market Banking: Commercial Real Estate Loans. This loan portfolio includes loans secured by commercial purpose real estate, including both owner occupied properties and investment properties for various purposes including office, retail, industrial, multifamily and hospitality. Individual project cash flows, global cash flows and liquidity from the developer, or the sale of the property are the primary sources of repayment for these loans. Also included are commercial construction loans to finance the construction or renovation of structures as well as to finance the acquisition and development of raw land for various purposes. The increased level of risk of these loans is generally confined to the construction period. If there are problems, the project may not be completed, and as such, may not provide sufficient cash flow on its own to service the debt or have sufficient value in a liquidation to cover the outstanding principal.

The underlying purpose/collateral of the loans is an important indicator of risk for this loan portfolio. Additional risks exist and are dependent on several factors such as the condition of the local/regional economy, whether or not the project is owner occupied, the type of project, and the experience and resources of the developer.

Private Banking Loans. Our private banking lending activities are conducted on a national basis. This loan portfolio primarily includes loans made to high-net-worth individuals, trusts and businesses that may be secured by cash, marketable securities, residential property or other financial assets, as well as unsecured loans and lines of credit. The primary sources of repayment for these loans are the income and/or assets of the borrower.

The underlying collateral is the most important indicator of risk for this loan portfolio. The overall lower risk profile of this portfolio is driven by loans secured by cash and marketable securities, which was 88.8% and 87.8% of total private banking loans as of March 31, 2016 and December 31, 2015, respectively.

Management further assesses risk within each loan portfolio using key inherent risk differentiators. The components of the allowance for loan losses represent estimates based upon ASC Topic 450, Contingencies, and ASC Topic 310, Receivables. ASC Topic 450 applies to homogeneous loan pools such as consumer installment, residential mortgages and consumer lines of credit, as well as commercial loans that are not individually evaluated for impairment under ASC Topic 310. Impaired loans are individually evaluated for impairment under ASC Topic 310.

On a monthly basis, management monitors various credit quality indicators for both the commercial and consumer loan portfolios, including delinquency, non-performing status, changes in risk ratings, changes in the underlying performance of the borrowers and other relevant factors. On a daily basis, the Company monitors the collateral of margin loans secured by cash and marketable securities within the private banking portfolio, which further reduces the risk profile of that portfolio. Refer to Note 1, Summary of Significant Accounting Policies, for the Company’s policy for determining past due status of loans.

Management continually monitors the loan portfolio through its internal risk rating system. Loan risk ratings are assigned based upon the creditworthiness of the borrower and, for our loans secured by marketable securities, the quality of the collateral. Loan risk ratings are reviewed on an ongoing basis according to internal policies. Loans within the pass rating are believed to have a lower risk of loss than loans risk rated as special mention, substandard and doubtful, which are believed to have an increasing risk of loss.

The Company's risk ratings are consistent with regulatory guidance and are as follows:

Non-Rated – Loans to individuals and trusts are not individually risk rated, unless they are fully secured by liquid assets or cash, or have an exposure of $250,000 or greater and have certain actionable covenants, such as a liquidity covenant or a financial reporting covenant. In addition, commercial loans with an exposure of less than $500,000 are not required to be individually risk rated. Any loan, regardless of size, is risk rated if it is secured by marketable securities or if it becomes a criticized loan. The majority of the private banking loans that are not risk rated are residential mortgages and home equity loans. We monitor the performance of non-rated loans through ongoing reviews of payment delinquencies. These loans comprised 2.7% and 3.0% of the loans held-for-investment, as of March 31, 2016 and December 31, 2015, respectively. For loans that are not risk-rated, the most important indicators of risk are the existence of collateral, the type of collateral and for consumer real estate loans, whether the Bank has a first or second lien position.

Pass – The loan is currently performing in accordance with its contractual terms.

Special Mention – A special mention loan has potential weaknesses that warrant management's close attention. If left uncorrected, these potential weaknesses may result in deterioration of the repayment prospects or in our credit position at some future date. Economic and market conditions, beyond the customer's control, may in the future necessitate this classification.

Substandard – A substandard loan is not adequately protected by the net worth and/or paying capacity of the obligor or by the collateral pledged, if any. Substandard loans have a well-defined weakness, or weaknesses that jeopardize the liquidation of the debt. These loans are characterized by the distinct possibility that the Company will sustain some loss if the deficiencies are not corrected.

Doubtful – A doubtful loan has all the weaknesses inherent in a loan categorized as substandard with the added characteristic that the weaknesses make collection or liquidation in full, on the basis of currently existing facts, conditions and values, highly questionable and improbable.

The following tables present the recorded investment in loans by credit quality indicator:

	March 31, 2016			
(Dollars in thousands)	Commercial and Industrial	Commercial Real Estate	Private Banking	Total
Non-rated	$—	$ —	$77,414	$77,414
Pass	559,131	912,448	1,290,844	2,762,423
Special mention	24,463	—	—	24,463
Substandard	28,678	2,912	713	32,303
Loans held-for-investment	$612,272	$ 915,360	$1,368,971	$2,896,603

	December 31, 2015			
(Dollars in thousands)	Commercial and Industrial	Commercial Real Estate	Private Banking	Total
Non-rated	$2,017	$ —	$83,513	$85,530
Pass	583,544	858,396	1,259,300	2,701,240
Special mention	31,863	880	—	32,743
Substandard	15,835	2,912	2,051	20,798

Doubtful	973	—	—	973
Loans held-for-investment	$634,232	$ 862,188	$1,344,864	$2,841,284

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Changes in the allowance for loan losses were as follows for the three months ended March 31, 2016 and 2015:

	Three Months Ended March 31, 2016			
(Dollars in thousands)	Commercial and Industrial	Commercial Real Estate	Private Banking	Total
Balance, beginning of period	$11,064	$ 5,344	$1,566	$17,974
Provision (credit) for loan losses	(50)	322	(150)	122
Charge-offs	—	—	—	—
Recoveries	450	—	—	450
Balance, end of period	$11,464	$ 5,666	$1,416	$18,546

	Three Months Ended March 31, 2015			
(Dollars in thousands)	Commercial and Industrial	Commercial Real Estate	Private Banking	Total
Balance, beginning of period	$13,501	$ 4,755	$ 2,017	$20,273
Provision for loan losses	683	218	24	925
Charge-offs	—	—	—	—
Recoveries	7	—	—	7
Balance, end of period	$14,191	$ 4,973	$ 2,041	$21,205

There were no charge-offs and $450,000 of recoveries on three C&I loans for the three months ended March 31, 2016. There were no charge-offs and there was a recovery of $7,000 on one C&I loan for the three months ended March 31, 2015.

The following tables present the age analysis of past due loans segregated by class of loan:

	March 31, 2016					
(Dollars in thousands)	30-59 Days Past Due	60-89 Days Past Due	Loans Past Due 90 Days or More	Total Past Due	Current	Total
Commercial and industrial	$—	$—	$—	$—	$612,272	$612,272
Commercial real estate	—	—	2,912	2,912	912,448	915,360
Private banking	—	—	224	224	1,368,747	1,368,971
Loans held-for-investment	$—	$—	$3,136	$3,136	$2,893,467	$2,896,603

	December 31, 2015					
(Dollars in thousands)	30-59 Days Past Due	60-89 Days Past Due	Loans Past Due 90 Days or More	Total Past Due	Current	Total
Commercial and industrial	$—	$—	$976	$976	$633,256	$634,232
Commercial real estate	—	—	2,912	2,912	859,276	862,188
Private banking	—	—	1,431	1,431	1,343,433	1,344,864
Loans held-for-investment	$—	$—	$5,319	$5,319	$2,835,965	$2,841,284

Non-Performing and Impaired Loans

Management monitors the delinquency status of the loan portfolio on a monthly basis. Loans were considered non-performing when interest and principal were 90 days or more past due or management has determined that it is probable the borrower is unable to meet payments as they become due. The risk of loss is generally highest for non-performing loans.

Management determines loans to be impaired when, based upon current information and events, it is probable that the loan will not be repaid according to the original contractual terms of the loan agreement, including both principal and interest, or if a loan is designated as a TDR. Refer to Note 1, Summary of Significant Accounting Policies, for the Company’s policy on evaluating loans for impairment and interest income.

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The following tables present the Company's investment in loans considered to be impaired and related information on those impaired loans:

(Dollars in thousands)	As of and for the Three Months Ended March 31, 2016				
	Recorded Investment	Unpaid Principal Balance	Related Allowance	Average Recorded Investment	Interest Income Recognized
With a related allowance recorded:					
Commercial and industrial	$17,628	$21,633	$ 4,793	$ 13,006	$ —
Commercial real estate	—	—	—	—	—
Private banking	612	737	612	692	—
Total with a related allowance recorded	18,240	22,370	5,405	13,698	—
Without a related allowance recorded:					
Commercial and industrial	492	508	—	498	7
Commercial real estate	2,912	9,067	—	2,912	—
Private banking	—	—	—	—	—
Total without a related allowance recorded	3,404	9,575	—	3,410	7
Total:					
Commercial and industrial	18,120	22,141	4,793	13,504	7
Commercial real estate	2,912	9,067	—	2,912	—
Private banking	612	737	612	692	—
Total	$21,644	$31,945	$ 5,405	$ 17,108	$ 7

(Dollars in thousands)	As of and for the Twelve Months Ended December 31, 2015				
	Recorded Investment	Unpaid Principal Balance	Related Allowance	Average Recorded Investment	Interest Income Recognized
With a related allowance recorded:					
Commercial and industrial	$11,797	$19,204	$ 3,800	$ 15,331	$ —
Commercial real estate	—	—	—	—	—
Private banking	745	864	745	824	—
Total with a related allowance recorded	12,542	20,068	4,545	16,155	—
Without a related allowance recorded:					
Commercial and industrial	513	1,789	—	838	29
Commercial real estate	2,912	9,067	—	3,108	—
Private banking	1,203	1,448	—	1,202	—
Total without a related allowance recorded	4,628	12,304	—	5,148	29
Total:					
Commercial and industrial	12,310	20,993	3,800	16,169	29
Commercial real estate	2,912	9,067	—	3,108	—
Private banking	1,948	2,312	745	2,026	—
Total	$17,170	$32,372	$ 4,545	$ 21,303	$ 29

Impaired loans as of March 31, 2016 and December 31, 2015, were $21.6 million and $17.2 million, respectively. There was no interest income recognized on these loans, while on non-accrual status, for the three months ended March 31, 2016, and the twelve months ended December 31, 2015. As of March 31, 2016 and December 31, 2015, there were no loans 90 days or more past due and still accruing interest income.

Impaired loans were evaluated using a discounted cash flow method or based on the fair value of the collateral less estimated selling costs. Based on those evaluations, as of March 31, 2016, there were specific reserves totaling $5.4 million, which were included in the $18.5 million allowance for loan losses. Also included in impaired loans were two C&I loans and one CRE loan with a combined balance of $3.4 million as of March 31, 2016, with no corresponding specific reserve since these loans had a net realizable value that management believes will be recovered from the borrower.

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As of December 31, 2015, there were specific reserves totaling $4.5 million, which were included in the $18.0 million allowance for loan losses. Also included in impaired loans were three C&I loans, one CRE loans and two private banking loans with a combined balance of $4.6 million as of December 31, 2015, with no corresponding specific reserve since these loans had a net realizable value that management believes will be recovered from the borrower.

The following tables present the allowance for loan losses and recorded investment in loans by class:

(Dollars in thousands)	March 31, 2016			
	Commercial and Industrial	Commercial Real Estate	Private Banking	Total
Allowance for loan losses:				
Individually evaluated for impairment	$4,793	$ —	$612	$5,405
Collectively evaluated for impairment	6,671	5,666	804	13,141
Total allowance for loan losses	$11,464	$ 5,666	$1,416	$18,546
Loans held-for-investment:				
Individually evaluated for impairment	$18,120	$ 2,912	$612	$21,644
Collectively evaluated for impairment	594,152	912,448	1,368,359	2,874,959
Loans held-for-investment	$612,272	$ 915,360	$1,368,971	$2,896,603

(Dollars in thousands)	December 31, 2015			
	Commercial and Industrial	Commercial Real Estate	Private Banking	Total
Allowance for loan losses:				
Individually evaluated for impairment	$3,800	$ —	$745	$4,545
Collectively evaluated for impairment	7,264	5,344	821	13,429
Total allowance for loan losses	$11,064	$ 5,344	$1,566	$17,974
Loans held-for-investment:				
Individually evaluated for impairment	$12,310	$ 2,912	$1,948	$17,170
Collectively evaluated for impairment	621,922	859,276	1,342,916	2,824,114
Loans held-for-investment	$634,232	$ 862,188	$1,344,864	$2,841,284

Troubled Debt Restructuring

The following table provides additional information on the Company's loans designated as troubled debt restructurings:

(Dollars in thousands)	March 31, 2016	December 31, 2015
Aggregate recorded investment of impaired loans with terms modified through a troubled debt restructuring:		
Performing loans accruing interest	$ 492	$ 510
Non-accrual loans	10,648	12,894
Total troubled debt restructurings	$ 11,140	$ 13,404

Of the non-accrual loans as of March 31, 2016, three C&I loans were designated by the Company as TDRs. There was also one C&I loan that was still accruing interest and designated by the Company as a performing TDR as of March 31, 2016. The aggregate recorded investment of these loans was $11.1 million. There were unused commitments of $1.3 million on these loans as of March 31, 2016, of which $39,000 was related to the performing TDR.

Of the non-accrual loans as of December 31, 2015, five C&I loans and one residential mortgage loan were designated by the Company as TDRs. There was also one C&I loan that was still accruing interest and designated by the Company as a performing TDR as of December 31, 2015. The aggregate recorded investment of these loans was $13.4 million. There were unused commitments of $1.7 million on these loans as of December 31, 2015, of which $39,000 was related to the performing TDR.

The modifications made to restructured loans typically consist of an extension or reduction of the payment terms, or the deferral of principal payments. There were no loans modified as a TDR within twelve months of the corresponding balance sheet date with a payment

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default during the three months ended March 31, 2016, and one private banking loan for $1.1 million that was modified as a TDR within twelve months of the corresponding balance sheet date with a payment default during the three months ended March 31, 2015.

There were no modifications made to loans designated as TDRs during the three months ended March 31, 2016. The financial effects of modifications made to loans designated as TDRs during three months ended March 31, 2015 were as follows:

	Three Months Ended March 31, 2015				
(Dollars in thousands)	Count	Recorded Investment at the time of Modification	Current Recorded Investment	Allowance for Loan Losses at the time of Modification	Current Allowance for Loan Losses
Commercial and industrial:					
Extended term and deferred principal	1	$ 433	$ 398	$ 433	$ 398
Deferred principal	2	6,849	6,544	1,500	1,947
Total	3	$ 7,282	$ 6,942	$ 1,933	$ 2,345

Other Real Estate Owned

As of March 31, 2016 and December 31, 2015, the balance of the other real estate owned portfolio was $1.7 million and $1.7 million, respectively. There were no residential mortgage loans in the process of foreclosure as of March 31, 2016.

[5] DEPOSITS

(Dollars in thousands)	Interest Rate Range as of March 31, 2016	Weighted Average Interest Rate as of March 31, 2016	Weighted Average Interest Rate as of December 31, 2015	Balance as of March 31, 2016	Balance as of December 31, 2015
Demand and savings accounts:					
Noninterest-bearing checking accounts	—	—	—	$155,188	$ 159,859
Interest-bearing checking accounts	0.05 to 0.52%	0.44%	0.42%	149,022	136,037
Money market deposit accounts	0.05 to 1.50%	0.62%	0.50%	1,610,089	1,464,279
Total demand and savings accounts				1,914,299	1,760,175
Time deposits	0.05 to 1.39%	0.83%	0.78%	841,908	929,669
Total deposit balance				$2,756,207	$ 2,689,844
Average rate paid on interest-bearing accounts		0.68%	0.60%		

As of March 31, 2016 and December 31, 2015, the Bank had total brokered deposits of $1.02 billion and $1.05 billion, respectively. The amount for brokered deposits includes reciprocal Certificate of Deposit Account Registry Service® ("CDARS®") and reciprocal Insured Cash Sweep® ("ICS®") accounts totaling $447.2 million and $496.5 million as of March 31, 2016 and December 31, 2015, respectively.

As of March 31, 2016 and December 31, 2015, time deposits with balances of $100,000 or more, excluding brokered certificates of deposit, amounted to $348.4 million and $409.2 million, respectively. Time deposits with balances of $250,000 or more, excluding brokered certificates of deposit, amounted to $114.6 million and $142.7 million as of March 31, 2016 and December 31, 2015, respectively.

The contractual maturity of time deposits, including brokered deposits, is as follows:

(Dollars in thousands)	March 31, 2016	December 31, 2015
12 months or less	$ 622,909	$ 645,004
12 months to 24 months	181,577	219,333
24 months to 36 months	37,177	65,332
36 months to 48 months	245	—
48 months to 60 months	—	—
Over 60 months	—	—
Total	$ 841,908	$ 929,669

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Interest expense on deposits is as follows:

	Three Months Ended March 31,	
(Dollars in thousands)	2016	2015
Interest-bearing checking accounts	$153	$120
Money market deposit accounts	2,207	1,220
Time deposits	1,778	1,552
Total interest expense on deposits	$4,138	$2,892

[6] BORROWINGS

As of March 31, 2016 and December 31, 2015, borrowings were comprised of the following:

	March 31, 2016			December 31, 2015		
(Dollars in thousands)	Interest Rate	Ending Balance	Maturity Date	Interest Rate	Ending Balance	Maturity Date
FHLB borrowings:						
Issued 3/31/2016	0.44%	$200,000	4/1/2016		$—	
Issued 12/31/2015		—		0.51%	170,000	1/4/2016
Issued 7/29/2015	0.61%	25,000	8/4/2016	0.61%	25,000	8/4/2016
Issued 7/29/2015	0.72%	25,000	11/3/2016	0.72%	25,000	11/3/2016
Subordinated notes payable (net of debt issuance costs of $642 and $692)	5.75%	34,358	7/1/2019	5.75%	34,308	7/1/2019
Total borrowings, net		$284,358			$254,308	

In June 2014, we completed a private placement of subordinated notes payable, raising $35.0 million. The subordinated notes have a term of 5 years at a fixed rate of 5.75%. The proceeds qualified as Tier 2 capital for the holding company, under federal regulatory capital rules.

The Bank's FHLB borrowing capacity is based on the collateral value of certain securities held in safekeeping at the FHLB and loans pledged to the FHLB. The Bank submits a quarterly Qualified Collateral Report ("QCR") to the FHLB to update the value of the loans pledged. As of March 31, 2016, the Bank's borrowing capacity is based on the information provided in the December 31, 2015, QCR filing. As of March 31, 2016, the Bank had securities held in safekeeping at the FHLB with a fair value of $6.1 million, combined with pledged loans of $713.7 million, for a borrowing capacity of $509.3 million, of which $250.0 million was outstanding in advances, as reflected in the table above. As of December 31, 2015, there was $220.0 million outstanding in advances from the FHLB. When the Bank borrows from the FHLB, interest is charged at the FHLB's posted rates at the time of the borrowing.

The Bank maintains an unsecured line of credit of $10.0 million with M&T Bank and an unsecured line of credit of $20.0 million with Texas Capital Bank. As of March 31, 2016, the full amount of these established lines were available to the Bank.

The Holding Company established an unsecured line of credit of $25.0 million, effective December 29, 2015, with Texas Capital Bank. As of March 31, 2016, the full amount of this established line was available.

[7] REGULATORY CAPITAL

The Company and the Bank are subject to various regulatory capital requirements administered by the federal banking agencies. Failure to meet minimum capital requirements can initiate certain mandatory – and possibly additional

discretionary – actions by regulators that, if undertaken, could have a direct material effect on the Company’s and the Bank’s financial statements. Under capital adequacy guidelines and the regulatory framework for prompt corrective action, the Company and the Bank must meet specific capital guidelines that involve quantitative measures of the Company’s and the Bank’s assets, liabilities, and certain off-balance sheet items as calculated under regulatory accounting practices. The Company’s and the Bank’s capital amounts and classification are also subject to qualitative judgments by the regulators about components, risk weighting, and other factors.

Quantitative measures established by regulation to ensure capital adequacy require the Company and the Bank to maintain minimum amounts and ratios (set forth in the tables below) of Common Equity Tier 1 (“CET 1”), Tier 1 and Total risk-based capital (as defined in the regulations) to risk-weighted assets (as defined), and of Tier 1 capital to average assets (as defined). As of March 31, 2016 and December 31, 2015, TriState Capital Holdings, Inc. and TriState Capital Bank exceeded all capital adequacy requirements to which they are subject.

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Financial depository institutions are categorized as well capitalized if they meet minimum Total risk-based, Tier 1 risk-based, CET 1 risk-based capital ratios and Tier 1 leverage ratio (Tier 1 capital to average assets) as set forth in the tables below. Based upon the information in the most recently filed Call Report, the Bank exceeded the capital ratios necessary to be well capitalized under the regulatory framework for prompt corrective action. There have been no conditions or events since the filing of the most recent Call Report that management believes have changed the Bank's capital, as presented below.

In December 2010, the Basel Committee released a final framework for a strengthened set of capital requirements, known as Basel III. In July 2013, final rules implementing the Basel III capital accord were adopted by the federal banking agencies. Basel III, which began phasing in on January 1, 2015, has replaced the existing regulatory capital rules for the Company and the Bank. The Basel III final rules required new minimum capital ratio standards, established a new common equity tier 1 to total risk-weighted assets ratio, subjected banking organizations to certain limitations on capital distributions and discretionary bonus payments and established a new standardized approach for risk weightings.

The following tables set forth certain information concerning the Company's and the Bank's regulatory capital as of March 31, 2016 and December 31, 2015:

	March 31, 2016					
	Actual		For Capital Adequacy Purposes		To be Well Capitalized Under Prompt Corrective Action Provisions	
(Dollars in thousands)	Amount	Ratio	Amount	Ratio	Amount	Ratio
Total risk-based capital ratio						
Company	$328,511	13.36%	$196,641	8.00%	N/A	N/A
Bank	$317,301	13.04%	$194,737	8.00%	$243,421	10.00%
Tier 1 risk-based capital ratio						
Company	$289,049	11.76%	$147,481	6.00%	N/A	N/A
Bank	$298,234	12.25%	$146,052	6.00%	$194,737	8.00 %
Common equity tier 1 risk-based capital ratio						
Company	$289,049	11.76%	$110,611	4.50%	N/A	N/A
Bank	$298,234	12.25%	$109,539	4.50%	$158,223	6.50 %
Tier 1 leverage ratio						
Company	$289,049	8.83 %	$130,925	4.00%	N/A	N/A
Bank	$298,234	9.18 %	$130,006	4.00%	$162,508	5.00 %

	December 31, 2015					
	Actual		For Capital Adequacy Purposes		To be Well Capitalized Under Prompt Corrective Action Provisions	
(Dollars in thousands)	Amount	Ratio	Amount	Ratio	Amount	Ratio
Total risk-based capital ratio						
Company	$326,378	13.88%	$188,176	8.00%	N/A	N/A
Bank	$310,624	13.35%	$186,077	8.00%	$232,596	10.00%
Tier 1 risk-based capital ratio						

Company	$287,072	12.20%	$141,132	6.00%	N/A	N/A
Bank	$292,234	12.56%	$139,558	6.00%	$186,077	8.00 %
Common equity tier 1 risk-based capital ratio						
Company	$287,072	12.20%	$105,849	4.50%	N/A	N/A
Bank	$292,234	12.56%	$104,668	4.50%	$151,187	6.50 %
Tier 1 leverage ratio						
Company	$287,072	9.05 %	$126,932	4.00%	N/A	N/A
Bank	$292,234	9.29 %	$125,870	4.00%	$157,338	5.00 %

In addition, the final rules subject a banking organization to certain limitations on capital distributions and discretionary bonus payments to executive officers if the organization does not maintain a capital conservation buffer of risk-based capital ratios in an amount greater

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than 2.5% of its total risk-weighted assets. The implementation of the capital conservation buffer began on January 1, 2016, at 0.625% and will be phased in over a four-year period (increasing by that amount ratably on each subsequent January 1, until it reaches 2.5% on January 1, 2019).

The Company has not paid dividends to its holders of its common shares since its inception in 2007.

[8] EMPLOYEE BENEFIT PLANS

The Company participates in a qualified 401(k) defined contribution plan, under which eligible employees may contribute a percentage of their salary at their discretion. During the three months ended March 31, 2016 and 2015, the Company automatically contributed three percent of the employee's base salary to the individual's 401(k) plan, subject to IRS limitations. Full-time employees and certain part-time employees are eligible to participate upon the first month following their first day of employment or having attained the age of 21, whichever is later. The Company's contribution expense was $196,000 and $187,000 for the three months ended March 31, 2016 and 2015, respectively, including incidental administrative fees paid to a third party administrator of the plan.

On February 28, 2013, the Company entered into a supplemental executive retirement plan ("SERP") for the Chairman and Chief Executive Officer. The benefits will be earned over a five-year period with the projected payments for this SERP of $25,000 per month for 180 months commencing the later of retirement or 60 months. For the three months ended March 31, 2016, the Company recorded expense related to SERP of $222,000, utilizing a discount rate of 2.15%. For the three months ended March 31, 2015, the Company recorded expense related to SERP of $192,000, utilizing a discount rate of 2.98%. The recorded liability related to the SERP plan was $2.3 million and $2.1 million as of March 31, 2016 and December 31, 2015, respectively.

[9] STOCK TRANSACTIONS

In October 2014, the Board of Directors authorized the repurchase of up to $10 million, or up to 1,000,000 shares, of the Company's common stock through December 31, 2015. During the year ended December 31, 2015, the Company repurchased a total of 321,109 shares for approximately $3.2 million, at an average cost of $9.84 per share. During the year ended December 31, 2014, the Company repurchased a total of 678,891 shares for approximately $6.7 million, at an average cost of $9.94 per share. Under this plan, the Company repurchased a total of 1,000,000 shares for approximately $9.9 million at an average cost of $9.90 per share and are held as treasury stock.

In January 2016, the Board of Directors authorized another repurchase of up to $10 million, or up to 1,000,000 shares, of the Company's common stock. During the three months ended March 31, 2016, the Company repurchased a total of 148,206 shares for approximately $1.7 million, at an average cost of $11.76 per share.

The tables below show the changes in the Company's common shares outstanding during the periods indicated.

	Number of Common Shares Outstanding
Balance, December 31, 2014	28,060,888
Issuance of restricted common stock	255,916
Forfeitures of restricted common stock	—
Exercise of stock options	—
Purchase of treasury stock	(308,342)
Balance, March 31, 2015	28,008,462

Balance, December 31, 2015	28,056,195
Issuance of restricted common stock	394,309
Forfeitures of restricted common stock	(4,000)
Exercise of stock options	2,500
Purchase of treasury stock	(148,206)
Balance, March 31, 2016	28,300,798

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[10] EARNINGS PER COMMON SHARE

The computation of basic and diluted earnings per common share for the periods presented is as follows:

	Three Months Ended March 31,	
(Dollars in thousands, except per share data)	2016	2015
Net income available to common shareholders	$5,843	$ 5,056
Weighted average common shares outstanding:		
Basic	27,679,245	27,891,931
Non-vested restricted stock - dilutive	114,326	2,398
Stock options - dilutive	447,579	59,415
Diluted	28,241,150	27,953,744
Earnings per common share:		
Basic	$0.21	$ 0.18
Diluted	$0.21	$ 0.18

	Three Months Ended March 31,	
	2016	2015
Anti-dilutive shares [(1)]	626,893	2,345,393

(1) Included stock options and non-vested restricted stock not considered for the calculation of diluted EPS as their inclusion would have been anti-dilutive.

[11] DERIVATIVES AND HEDGING ACTIVITY

RISK MANAGEMENT OBJECTIVE OF USING DERIVATIVES

The Company is exposed to certain risks arising from both its business operations and economic conditions. The Company principally manages its exposures to a wide variety of business and operational risks through management of its core business activities. The Company manages economic risks, including interest rate, liquidity, and credit risk primarily by managing the amount, sources, and duration of its debt funding and through the use of derivative financial instruments. Specifically, the Company enters into derivative financial instruments to manage exposures that arise from business activities that result in the receipt or payment of future known and uncertain cash amounts, the value of which are determined by interest rates. The Company’s derivative financial instruments are used to manage differences in the amount, timing, and duration of the Company’s known or expected cash receipts related to certain of the Company’s fixed-rate loan assets. The Company also has derivatives that are a result of a service the Company provides to certain qualifying customers while at the same time the Company enters into an offsetting derivative transaction in order to eliminate its interest rate risk exposure resulting from such transactions.

FAIR VALUES OF DERIVATIVE INSTRUMENTS ON THE STATEMENTS OF FINANCIAL CONDITION

The tables below present the fair value of the Company’s derivative financial instruments as well as their classification on the consolidated statements of financial condition as of March 31, 2016 and December 31, 2015:

	Asset Derivatives as of March 31, 2016		Liability Derivatives as of March 31, 2016	
(Dollars in thousands)	Balance Sheet Location	Fair Value	Balance Sheet Location	Fair Value
Derivatives designated as hedging instruments:				
Interest rate products	Other assets	$ —		$ 154

			Other liabilities	
Derivatives not designated as hedging instruments:				
Interest rate products	Other assets	$ 16,298	Other liabilities	$ 17,510

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(Dollars in thousands)	Asset Derivatives as of December 31, 2015 Balance Sheet Location	Fair Value	Liability Derivatives as of December 31, 2015 Balance Sheet Location	Fair Value
Derivatives designated as hedging instruments:				
Interest rate products	Other assets	$—	Other liabilities	$229
Derivatives not designated as hedging instruments:				
Interest rate products	Other assets	$8,662	Other liabilities	$9,363

FAIR VALUE HEDGES OF INTEREST RATE RISK
The Company is exposed to changes in the fair value of certain of its fixed-rate obligations due to changes in benchmark interest rates, which relate predominantly to LIBOR. Interest rate swaps designated as fair value hedges involve the receipt of variable rate payments from a counterparty in exchange for the Company making fixed-rate payments over the life of the agreements without the exchange of the underlying notional amount. As of March 31, 2016, the Company had four interest rate swaps, with a notional amount of $3.1 million that were designated as fair value hedges of interest rate risk associated with the Company's fixed-rate loan assets. The notional amounts for the derivatives express the face amount of the positions, however, credit risk was considered insignificant for three months ended March 31, 2016 and 2015. There were no counterparty default losses on derivatives for the three months ended March 31, 2016 and 2015.

For the four derivatives that were designated and that qualify as fair value hedges, the gain or loss on the derivative as well as the offsetting loss or gain on the hedged item attributable to the hedged risk are recognized in earnings by applying the "fair value long haul" method. The Company includes the gain or loss on the hedged items in the same line item as the offsetting loss or gain on the related derivatives. During the three months ended March 31, 2016, the Company recognized a net gain of $1,000 in non-interest income related to hedge ineffectiveness as compared to no gains during the three months ended March 31, 2015. The Company also recognized a decrease to interest income of $24,000 and $82,000 for the three months ended March 31, 2016 and 2015, respectively, related to the Company's fair value hedges, which includes net settlements on the derivatives, and any amortization adjustment of the basis in the hedged items.

NON-DESIGNATED HEDGES
The Company does not use derivatives for trading or speculative purposes. Derivatives not designated as hedges are not speculative and result from a service the Company provides to certain customers. The Company executes interest rate derivatives with its commercial banking customers to facilitate their respective risk management strategies. Those derivatives are simultaneously and economically hedged by offsetting derivatives that the Company executes with a third party, such that the Company eliminates its interest rate exposure resulting from such transactions. Changes in the fair value of derivatives not designated in hedging relationships are recorded directly in earnings. As of March 31, 2016, the Company had 170 derivative transactions with an aggregate notional amount of $675.7 million related to this program. During the three months ended March 31, 2016 and 2015, the Company recognized a net loss of $455,000 and $217,000, respectively, related to changes in fair value of the derivatives not designated in hedging relationships.

EFFECT OF DERIVATIVE INSTRUMENTS IN THE STATEMENTS OF INCOME
The tables below present the effect of the Company's derivative financial instruments in the consolidated statements of income for the periods presented:

(Dollars in thousands)	Three Months Ended March 31, 2016	2015

Derivatives designated as hedging instruments:	Location of Gain (Loss) Recognized in Income on Derivative	Amount of Gain (Loss) Recognized in Income on Derivative	
Interest rate products	Interest income	$(24)	$(82)
	Non-interest income	1	—
Total		$(23)	$(82)

Derivatives not designated as hedging instruments:	Location of Gain (Loss) Recognized in Income on Derivative	Amount of Gain (Loss) Recognized in Income on Derivative	
Interest rate products	Non-interest income	$(455)	$(217)
Total		$(455)	$(217)

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CREDIT-RISK-RELATED CONTINGENT FEATURES

The Company has agreements with each of its derivative counterparties that contain a provision where, if the Company defaults on any of its indebtedness, including default where repayment of the indebtedness has not been accelerated by the lender, then the Company could also be declared in default on its derivative obligations.

The Company has agreements with certain of its derivative counterparties that contain a provision where, if either the Company or the counterparty fails to maintain its status as a well/adequately capitalized institution, then the Company or the counterparty could be required to terminate any outstanding derivative positions and settle its obligations under the agreement.

As of March 31, 2016, the termination value of derivatives, including accrued interest, in a net liability position related to these agreements was $17.7 million. As of March 31, 2016, the Company has minimum collateral posting thresholds with certain of its derivative counterparties and has posted collateral of $15.9 million. If the Company had breached any of these provisions as of March 31, 2016, it could have been required to settle its obligations under the agreements at their termination value.

[12] DISCLOSURES ABOUT FAIR VALUE OF FINANCIAL INSTRUMENTS

Fair value estimates of financial instruments are based on the present value of expected future cash flows, quoted market prices of similar financial instruments, if available, and other valuation techniques. These valuations are significantly affected by discount rates, cash flow assumptions, and risk assumptions used. Therefore, fair value estimates may not be substantiated by comparison to independent markets and are not intended to reflect the proceeds that may be realized in an immediate settlement of instruments. Accordingly, the aggregate fair value amounts presented below do not represent the underlying value of the Company.

FAIR VALUE MEASUREMENTS

In accordance with U.S. GAAP the Company must account for certain financial assets and liabilities at fair value on a recurring and non-recurring basis. The Company utilizes a three-level fair value hierarchy of valuation techniques to estimate the fair value of its financial assets and liabilities based on whether the inputs to those valuation techniques are observable or unobservable. The fair value hierarchy gives the highest priority to quoted prices with readily available independent data in active markets for identical assets or liabilities (Level 1) and the lowest priority to unobservable market inputs (Level 3). When various inputs for measurement fall within multiple levels of the fair value hierarchy, the lowest level input that has a significant impact on fair value measurement is used.

Financial assets and liabilities are categorized based upon the following characteristics or inputs to the valuation techniques:

- Level 1 – Financial assets and liabilities for which inputs are observable and are obtained from reliable quoted prices for identical assets or liabilities in actively traded markets. This is the most reliable fair value measurement and includes, for example, active exchange-traded equity securities.
- Level 2 – Financial assets and liabilities for which values are based on quoted prices in markets that are not active or for which values are based on similar assets or liabilities that are actively traded. Level 2 also includes pricing models in which the inputs are corroborated by market data, for example, matrix pricing.
- Level 3 – Financial assets and liabilities for which values are based on prices or valuation techniques that require inputs that are both unobservable and significant to the overall fair value measurement. Level 3 inputs include assumptions of a source independent of the reporting entity or the reporting entity’s own assumptions that are supported by little or no market activity or observable inputs.

The Company is responsible for the valuation process and as part of this process may use data from outside sources in establishing fair value. The Company performs due diligence to understand the inputs used or how the data was calculated or derived. The Company corroborates the reasonableness of external inputs in the valuation process.

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RECURRING FAIR VALUE MEASUREMENTS

The following tables represent assets and liabilities measured at fair value on a recurring basis as of March 31, 2016 and December 31, 2015:

	March 31, 2016			
(Dollars in thousands)	Level 1	Level 2	Level 3	Total Assets / Liabilities at Fair Value
Financial assets:				
Investment securities available-for-sale:				
Corporate bonds	$ —	$ 65,620	$ —	$ 65,620
Trust preferred securities	—	15,298	—	15,298
Non-agency mortgage-backed securities	—	5,712	—	5,712
Non-agency collateralized loan obligations	—	11,488	—	11,488
Agency collateralized mortgage obligations	—	47,765	—	47,765
Agency mortgage-backed securities	—	28,110	—	28,110
Agency debentures	—	4,676	—	4,676
Equity securities	7,869	—	—	7,869
Interest rate swaps	—	16,298	—	16,298
Total financial assets	7,869	194,967	—	202,836
Financial liabilities:				
Interest rate swaps	—	17,664	—	17,664
Total financial liabilities	$ —	$ 17,664	$ —	$ 17,664

	December 31, 2015			
(Dollars in thousands)	Level 1	Level 2	Level 3	Total Assets / Liabilities at Fair Value
Financial assets:				
Investment securities available-for-sale:				
Corporate bonds	$ —	$ 43,733	$ —	$ 43,733
Trust preferred securities	—	16,601	—	16,601
Non-agency mortgage-backed securities	—	5,743	—	5,743
Non-agency collateralized loan obligations	—	11,711	—	11,711
Agency collateralized mortgage obligations	—	49,371	—	49,371
Agency mortgage-backed securities	—	28,669	—	28,669
Agency debentures	—	4,732	—	4,732
Equity securities	7,759	—	—	7,759
Interest rate swaps	—	8,662	—	8,662
Total financial assets	7,759	169,222	—	176,981
Financial liabilities:				
Interest rate swaps	—	9,592	—	9,592
Total financial liabilities	$ —	$ 9,592	$ —	$ 9,592

INVESTMENT SECURITIES
Generally, investment securities are valued using pricing for similar securities, recently executed transactions, and other pricing models utilizing observable inputs. The valuations for debt and equity securities are classified as either Level 1 or Level 2. U.S. Treasury Notes and equity securities (including mutual funds) are classified as Level 1 because these securities are in actively traded markets. Investment securities within Level 2 include corporate bonds, single-issuer trust preferred securities, non-agency mortgage-backed securities and collateralized loan obligations, collateralized mortgage obligations and mortgage-backed securities issued by U.S. government agencies and U.S. government agency debentures.

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INTEREST RATE SWAPS

The fair value is estimated using inputs that are observable or that can be corroborated by observable market data and, therefore, are classified as Level 2. These fair value estimations include primarily market observable inputs such as the forward LIBOR swap curve.

NON-RECURRING FAIR VALUE MEASUREMENTS

Certain financial assets and financial liabilities are measured at fair value on a non-recurring basis; that is, the instruments are not measured at fair value on an ongoing basis but are subject to fair value adjustments in certain circumstances, such as when there is evidence of impairment.

The following tables represent the balances of assets measured at fair value on a non-recurring basis as of March 31, 2016 and December 31, 2015:

	March 31, 2016			
(Dollars in thousands)	Level 1	Level 2	Level 3	Total Assets at Fair Value
Loans measured for impairment, net	$ —	$ —	$ 16,239	$ 16,239
Other real estate owned	—	—	1,730	1,730
Total assets	$ —	$ —	$ 17,969	$ 17,969

	December 31, 2015			
(Dollars in thousands)	Level 1	Level 2	Level 3	Total Assets at Fair Value
Loans measured for impairment, net	$ —	$ —	$ 12,625	$ 12,625
Other real estate owned	—	—	1,730	1,730
Total assets	$ —	$ —	$ 14,355	$ 14,355

As of March 31, 2016, the Company recorded $5.4 million of specific reserves to the allowance for loan losses as a result of adjusting the fair value of the collateral for certain collateral dependent impaired loans to $3.4 million, and as a result of adjusting the value based upon the discounted cash flow to $12.8 million as of March 31, 2016.

As of December 31, 2015, the Company recorded $4.5 million of specific reserves to allowance for loan losses as a result of adjusting the fair value of the collateral for certain collateral dependent impaired loans to $5.4 million, and as a result of adjusting the value based upon the discounted cash flow to $7.2 million as of December 31, 2015.

IMPAIRED LOANS

A loan is considered impaired when management determines it is probable that all of the principal and interest due under the original terms of the loan may not be collected or if a loan is designated as a TDR. Impairment is measured based on a discounted cash flows method or the fair value of the underlying collateral less estimated selling costs. Our policy is to obtain appraisals on collateral supporting impaired loans on an annual basis, unless circumstances dictate a shorter time frame. Appraisals are reduced by estimated costs to sell the collateral, and, under certain circumstances, additional factors that may arise and cause us to believe our recovered value may be less than the independent appraised value. Accordingly, impaired loans are classified as Level 3. The Company measures impairment on all loans as part of the allowance for loan losses.

OTHER REAL ESTATE OWNED

Real estate owned is comprised of property acquired through foreclosure or voluntarily conveyed by borrowers. These assets are recorded on the date acquired at the lower of the related loan balance or fair value, less estimated disposition costs, with the fair value being determined by appraisal. Our policy is to obtain appraisals on collateral supporting OREO on an annual basis, unless circumstances dictate a shorter time frame. Appraisals are reduced by estimated costs to sell the collateral, and, under certain circumstances, additional factors that may arise and cause us to believe our recovered value may be less than the independent appraised value. Accordingly, real estate owned is classified as Level 3.

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LEVEL 3 VALUATION

The following tables present additional quantitative information about assets measured at fair value on a recurring and non-recurring basis and for which we have utilized Level 3 inputs to determine fair value as of March 31, 2016 and December 31, 2015:

March 31, 2016

(Dollars in thousands)	Fair Value	Valuation Techniques [1]	Significant Unobservable Inputs	Weighted Average Discount Rate
Loans measured for impairment, net	$3,405	Appraisal value	Discount due to salability conditions	— % [2]
Loans measured for impairment, net	$12,834	Discounted cash flow	Discount due to restructured nature of operations	6 %
Other real estate owned	$1,730	Appraisal value	Discount due to salability conditions	10 %

(1) Fair value is generally determined through independent appraisals of the underlying collateral, which may include level 3 inputs that are not identifiable, or by using the discounted cash flow method if the loan is not collateral dependent.

(2) The collateral value exceeds the net realizable value of these loans and therefore no discount was taken.

December 31, 2015

(Dollars in thousands)	Fair Value	Valuation Techniques [1]	Significant Unobservable Inputs	Weighted Average Discount Rate
Loans measured for impairment, net	$5,428	Appraisal value or Liquidation analysis	Discount due to salability conditions	14 %
Loans measured for impairment, net	$7,197	Discounted cash flow	Discount due to restructured nature of operations	7 %
Other real estate owned	$1,730	Appraisal value	Discount due to salability conditions	10 %

(1) Fair value is generally determined through independent appraisals or liquidation analysis of the underlying collateral, which may include level 3 inputs that are not identifiable, or by using the discounted cash flow method if the loan is not collateral dependent.

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FAIR VALUE OF FINANCIAL INSTRUMENTS

A summary of the carrying amounts and estimated fair values of financial instruments is as follows:

(Dollars in thousands)	March 31, 2016			December 31, 2015	
	Fair Value Level	Carrying Amount	Estimated Fair Value	Carrying Amount	Estimated Fair Value
Financial assets:					
Cash and cash equivalents	1	$110,493	$110,493	$96,676	$96,676
Investment securities available-for-sale: debt	2	178,669	178,669	160,560	160,560
Investment securities available-for-sale: equity	1	7,869	7,869	7,759	7,759
Investment securities held-to-maturity	2	47,256	48,344	47,290	48,099
Loans held-for-investment, net	3	2,878,057	2,879,461	2,823,310	2,813,278
Accrued interest receivable	2	7,904	7,904	7,056	7,056
Investment management fees receivable	2	6,068	6,068	6,191	6,191
Federal Home Loan Bank stock	2	10,602	10,602	9,802	9,802
Bank owned life insurance	2	60,460	60,460	60,019	60,019
Interest rate swaps	2	16,298	16,298	8,662	8,662
Other real estate owned	3	1,730	1,730	1,730	1,730
Financial liabilities:					
Deposits	2	$2,756,207	$2,757,009	$2,689,844	$2,690,693
Borrowings, net	2	284,358	285,137	254,308	255,179
Interest rate swaps	2	17,664	17,664	9,592	9,592

During the three months ended March 31, 2016 and 2015, there were no transfers between fair value Levels 1, 2 or 3.

The following methods and assumptions were used to estimate the fair value of each class of financial instruments as of March 31, 2016 and December 31, 2015:

CASH AND CASH EQUIVALENTS
The carrying amount approximates fair value.

INVESTMENT SECURITIES
The fair values of investment securities available-for-sale, held-to-maturity and trading are based on quoted market prices for the same or similar securities, recently executed transactions and pricing models.

LOANS HELD-FOR-INVESTMENT
The fair value of loans is estimated by discounting the future cash flows using the current rates at which similar loans would be made to borrowers with similar credit ratings and for the same remaining maturities. Fair value as determined here does not represent an exit price. Impaired loans are generally valued at the fair value of the associated collateral.

ACCRUED INTEREST RECEIVABLE
The carrying amount approximates fair value.

INVESTMENT MANAGEMENT FEES RECEIVABLE
The carrying amount approximates fair value.

FEDERAL HOME LOAN BANK STOCK

The carrying value of our FHLB stock, which is a marketable equity investment, approximates fair value.

BANK OWNED LIFE INSURANCE

The fair value of the general account bank owned life insurance is based on the insurance contract net cash surrender value.

OTHER REAL ESTATE OWNED

Real estate owned is recorded on the date acquired at the lower of the related loan balance or fair value, less estimated disposition costs, with the fair value being determined by appraisal.

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DEPOSITS
The fair value of demand deposits is the amount payable on demand as of the reporting date, i.e., their carrying amounts. The fair value of fixed maturity certificates of deposit is estimated using a discounted cash flow calculation that applies the rates currently offered for deposits of similar remaining maturities.

BORROWINGS
The fair value of our borrowings is calculated by discounting scheduled cash flows through the estimated maturity using period end market rates for borrowings of similar remaining maturities.

INTEREST RATE SWAPS
The fair value of interest rate swaps are estimated through the assistance of an independent third party and compared to the fair value determined by the swap counterparty to establish reasonableness.

OFF-BALANCE SHEET INSTRUMENTS
Fair values for the Company's off-balance sheet instruments, which consist of lending commitments, standby letters of credit and risk participation agreements related to interest rate swap agreements, are based on fees currently charged to enter into similar agreements, taking into account the remaining terms of the agreements and the counterparties' credit standing. Management believes that the fair value of these off-balance sheet instruments is not significant.

[13] CHANGES IN ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS)

The following table shows the changes in accumulated other comprehensive income (loss), for the periods presented:

	Three Months Ended March 31,	
	2016	2015
(Dollars in thousands)	Unrealized Gains and Losses on Investment Securities	Unrealized Gains and Losses on Investment Securities
Balance, beginning of period	$(1,443)	$ (627)
Change in unrealized holding gains (losses)	(650)	293
Gains reclassified from other comprehensive income (loss) (1)	(1)	(11)
Net other comprehensive income (loss)	(651)	282
Balance, end of period	$(2,094)	$ (345)

(1) Consists of net realized gains on sales of investment securities available-for-sale of $1,000 and $17,000, net of income tax expense of $0 and $6,000 for the three months ended March 31, 2016 and 2015, respectively.

[14] CONTINGENT LIABILITIES

The Company is not subject to any asserted claims nor is it aware of any unasserted claims. In the opinion of management, there are no potential claims that would have a material adverse effect on the Company's financial position, liquidity or results of operations.

[15] SEGMENTS

The Company operates two reportable segments: Bank and Investment Management.

- The Bank segment provides commercial banking and private banking services to middle-market businesses and high-net-worth individuals through the TriState Capital Bank subsidiary.
- The Investment Management segment provides advisory and sub-advisory investment management services to primarily institutional plan sponsors through the Chartwell Investment Partners, LLC subsidiary and also supports distribution and marketing efforts for Chartwell's proprietary investment products through the Chartwell TSC Securities Corp. subsidiary.

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The following tables provide financial information for the two segments of the Company as of and for the periods indicated. The information provided under the caption "Parent and Other" represents operations not considered to be reportable segments and/or general operating expenses of the Company, which includes the parent company activity as well as eliminations and adjustments that are necessary for purposes of reconciliation to the consolidated amounts.

(Dollars in thousands)	March 31, 2016	December 31, 2015
	(unaudited)	
Assets:		
Bank	$3,332,996	$3,236,756
Investment management	60,983	65,516
Parent and other	5,892	(101)
Total assets	$3,399,871	$3,302,171

(Dollars in thousands)	Three Months Ended March 31, 2016 Bank	Investment Management	Parent and Other	Consolidated	Three Months Ended March 31, 2015 Bank	Investment Management	Parent and Other	Consolidated
Income statement data:	(unaudited)				(unaudited)			
Interest income	$23,190	$ —	$73	$ 23,263	$19,941	$ —	$54	$ 19,995
Interest expense	4,432	—	551	4,983	3,000	—	539	3,539
Net interest income (loss)	18,758	—	(478)	18,280	16,941	—	(485)	16,456
Provision for loan losses	122	—	—	122	925	—	—	925
Net interest income (loss) after provision for loan losses	18,636	—	(478)	18,158	16,016	—	(485)	15,531
Non-interest income:								
Investment management fees	—	7,073	(54)	7,019	—	7,702	(47)	7,655
Net gain on the sale of investment securities available-for-sale	1	—	—	1	17	—	—	17
Other non-interest income	1,992	—	—	1,992	1,385	1	—	1,386
Total non-interest income	1,993	7,073	(54)	9,012	1,402	7,703	(47)	9,058
Non-interest expense:								
Intangible amortization expense	—	390	—	390	—	389	—	389
Other non-interest expense	12,325	5,293	(2)	17,616	11,254	5,498	(39)	16,713
Total non-interest expense	12,325	5,683	(2)	18,006	11,254	5,887	(39)	17,102
Income (loss) before tax	8,304	1,390	(530)	9,164	6,164	1,816	(493)	7,487
Income tax expense (benefit)	2,990	532	(201)	3,321	1,897	688	(154)	2,431
Net income (loss)	$5,314	$ 858	$(329)	$ 5,843	$4,267	$ 1,128	$(339)	$ 5,056

[16] SUBSEQUENT EVENT

On April 29, 2016, TriState Capital Holdings, Inc. closed its previously announced acquisition of investment management firm The Killen Group, Inc. Considering the close proximity of the closing of this acquisition, the disclosures required under ASC Topic 805, Business Combinations, will be provided in the Company's next quarterly filing.

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

This section presents management’s perspective on our financial condition and results of operations and highlights material changes to the financial condition and results of operations as of and for the three months ended March 31, 2016. The following discussion and analysis should be read in conjunction with our unaudited condensed consolidated financial statements and related notes contained herein and our consolidated financial statements and notes thereto and Management’s Discussion and Analysis for the fiscal year ended December 31, 2015, included in the Company’s Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 16, 2016.

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CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This report contains forward-looking statements within the meaning of section 27A of the Securities Act and section 21E of the Exchange Act. These forward-looking statements reflect our current views with respect to, among other things, future events and our financial performance. These statements are often, but not always, made through the use of words or phrases such as “may,” “should,” “could,” “predict,” “potential,” “believe,” “will likely result,” “expect,” “continu “anticipate,” “seek,” “estimate,” “intend,” “plan,” “projection,” “would” and “outlook,” or the negative version of those words comparable of a future or forward-looking nature. These forward-looking statements are not historical facts, and are based on current expectations, estimates and projections about our industry, management’s beliefs and certain assumptions made by management, many of which, by their nature, are inherently uncertain and beyond our control. Accordingly, we caution you that any such forward-looking statements are not guarantees of future performance and are subject to risks, assumptions and uncertainties that are difficult to predict. Although we believe that the expectations reflected in these forward-looking statements are reasonable as of the date made, actual results may prove to be materially different from the results expressed or implied by the forward-looking statements.

There are or will be important factors that could cause our actual results to differ materially from those indicated in these forward-looking statements, including, but not limited to, the following:

- Deterioration of our asset quality;
- Our ability to prudently manage our growth and execute our strategy;
- Changes in the value of collateral securing our loans;
- Business and economic conditions generally and in the financial services industry, nationally and within our local market area;
- Changes in management personnel;
- Our ability to maintain important deposit customer relationships, our reputation and otherwise avoid liquidity risks;
- Our ability to provide investment management performance competitive with our peers and benchmarks;
- Operational risks associated with our business;
- Volatility and direction of market interest rates;
- Increased competition in the financial services industry, particularly from regional and national institutions;
- Changes in the laws, rules, regulations, interpretations or policies relating to financial institutions, accounting, tax, trade, monetary and fiscal matters;
- Further government intervention in the U.S. financial system;
- Natural disasters and adverse weather, acts of terrorism, an outbreak of hostilities or other international or domestic calamities, and other matters beyond our control; and
- Other factors that are discussed in the section entitled “Risk Factors,” in our Annual Report on Form 10-K, filed with the SEC on February 16, 2016, which is accessible at www.sec.gov.

The foregoing factors should not be construed as exhaustive and should be read together with the other cautionary statements included in this document. If one or more events related to these or other risks or uncertainties materialize, or if our underlying assumptions prove to be incorrect, actual results may differ materially from what we anticipate. Accordingly, you should not place undue reliance on any such forward-looking statements. Any forward-looking statement speaks only as of the date on which it is made, and we do not undertake any obligation to publicly update or review any forward-looking statement, whether as a result of new information, future developments or otherwise. New factors emerge from time to time, and it is not possible for us to predict which will arise. In addition, we cannot assess 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.

General

We are a bank holding company that operates through two reporting segments: Bank and Investment Management. The Bank segment provides commercial banking and private banking services to middle-market businesses and high-net-worth individuals through our TriState Capital Bank subsidiary. The Bank segment generates most of its revenue from interest on loans and investments, loan-related fees and deposit-related fees. Its primary source of funding for loans is deposits. Its largest expenses are interest on these deposits and salaries and related employee benefits. The Investment Management segment provides advisory and sub-advisory investment management services primarily to institutional plan sponsors through our Chartwell Investment Partners, LLC subsidiary and also supports distribution and marketing efforts for Chartwell's proprietary investment products through our Chartwell TSC Securities Corp. subsidiary. The

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Investment Management segment generates most of its revenue from investment management fees earned on assets under management and its largest expenses are salaries and related employee benefits.

The following discussion and analysis presents our financial condition and results of operations on a consolidated basis, except where significant segment disclosures are necessary to better explain the operations of each segment and related variances. In particular, the discussion and analysis of non-interest income and non-interest expense is reported by segment.

We measure our performance primarily through our earnings per common share; total revenue; and pre-tax, pre-provision net revenue. Other salient metrics include the ratio of allowance for loan losses to loans; net interest margin; the efficiency ratio of the Bank segment; assets under management; return on average assets; and return on average equity, while maintaining appropriate regulatory leverage and risk-based capital ratios.

Executive Overview

TriState Capital Holdings, Inc. (“we”, “us”, “our” or the “Company”) is a bank holding company headquartered in Pittsburgh, Pennsylvania. The Company has three wholly owned subsidiaries: TriState Capital Bank (the “Bank”), a Pennsylvania chartered bank; Chartwell Investment Partners, LLC (“Chartwell”), a registered investment advisor; and Chartwell TSC Securities Corp. (“CTSC Securities”), which is applying to be registered as a broker/dealer with the SEC and FINRA. Through our bank subsidiary, we serve middle-market businesses in our primary markets throughout the states of Pennsylvania, Ohio, New Jersey and New York. We also serve high-net-worth individuals on a national basis through our private banking channel. We market and distribute our products and services through a scalable, branchless banking model, which creates significant operating leverage throughout our business as we continue to grow. Through our investment management subsidiary, we provide investment management services to institutional, sub-advisory, managed account and private clients on a national basis, which had assets under management of $8.58 billion as of March 31, 2016. Our broker/dealer subsidiary, once registered, will support any distribution and marketing efforts for Chartwell’s proprietary investment products that may require SEC or FINRA licensing. On December 16, 2015, the Company entered into a definitive asset purchase agreement to acquire The Killen Group, Inc. (“TKG”) that closed on April 29, 2016. The privately held investment manager has assets under management of approximately $2.06 billion as of March 31, 2016.

For the three months ended March 31, 2016, our net income was $5.8 million compared to $5.1 million for the same period in 2015, an increase of $787,000, primarily due to the net impact of (1) a $1.8 million, or 11.1%, increase in our net interest income; (2) a decrease in provision for loan losses of $803,000; (3) a decrease in non-interest income of $46,000, largely related to lower investment management fees offset by higher swap fees, (4) an increase of $904,000 in our non-interest expense; and (5) a $890,000 increase in income taxes.

Our diluted EPS was $0.21 for the three months ended March 31, 2016, compared to $0.18 for the same period in 2015. The increase is a result of an increase of $787,000 in our net income.

For the three months ended March 31, 2016, total revenue increased $1.8 million, or 7.0%, to $27.3 million from $25.5 million for the same period in 2015, driven by higher net interest income for the Bank. Pre-tax, pre-provision net revenue increased $890,000, or 10.6%, to $9.3 million for the three months ended March 31, 2016, from $8.4 million for the same period in 2015, resulting from higher total revenue partially offset by higher non-interest expenses.

Our annualized net interest margin was 2.33% for the three months ended March 31, 2016, as compared to 2.44%, for the same period in 2015. The most significant factor driving net interest margin compression has been our shift toward lower-risk assets, most notably the marketable-securities-backed private banking margin loan portfolio that the Bank

has made its fastest growing channel, which was partially offset by the effect on our floating-rate loans due to the Federal Reserve's increase in the target federal funds rate in December 2015.

For the three months ended March 31, 2016, the Bank's efficiency ratio decreased to 59.40% as compared to 61.41% for the same period in 2015, due to higher total revenue of the Bank segment related to net interest income and swap fees during the three months ended March 31, 2016. Our non-interest expense to average assets for the three months ended March 31, 2016, was 2.19% compared to 2.41%, for the same period in 2015.

Our annualized return on average assets was unchanged at 0.71% for the three months ended March 31, 2016 and 2015. Our annualized return on average equity was 7.15%, for the three months ended March 31, 2016, as compared to 6.66% for the same period in 2015.

Total assets of $3.40 billion as of March 31, 2016, increased $97.7 million, or 11.9% on an annualized basis, from December 31, 2015. Loans held-for-investment grew by $55.3 million to $2.90 billion as of March 31, 2016, an annualized increase of 7.8%, from December 31, 2015, as a result of growth in our commercial real estate and private banking loan portfolios. Total deposits increased $66.4 million, or 9.9% on an annualized basis, to $2.76 billion as of March 31, 2016, from December 31, 2015.

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Non-performing assets to total assets increased to 0.67% as of March 31, 2016, from 0.56% as of December 31, 2015, primarily due to the addition of one $7.0 million non-performing commercial and industrial loan partially offset by $2.5 million in paydowns and three payoffs on non-performing loans during the three months ended March 31, 2016. There were recoveries of $450,000 for the three months ended March 31, 2016, compared to $7,000 for the same period in 2015.

The allowance for loan losses to loans was 0.64% as of March 31, 2016, compared to 0.63% as of December 31, 2015. The allowance for loan losses to non-performing loans decreased to 87.68% as of March 31, 2016, from 107.89% as of December 31, 2015. This change was primarily due to higher non-performing loan balances as of March 31, 2016, as noted above. The provision for loan losses was $122,000 for the three months ended March 31, 2016, as compared to $925,000 for the same period in 2015. The trend of our recent provision expense reflects the change in complexion of our loan portfolio over the past year with a decrease in adverse-rated credits and a much larger percentage of the portfolio in loans secured by marketable securities.

Our book value per common share increased $0.05 to $11.67 as of March 31, 2016, from $11.62 as of December 31, 2015, largely as a result of an increase in our net income, partially offset by the issuance of restricted stock during three months ended March 31, 2016.

Non-GAAP Financial Measures

The information set forth above contains certain financial information determined by methods other than in accordance with GAAP. These non-GAAP financial measures are “total revenue,” “pre-tax, pre-provision net revenue,” and “efficiency ratio.” Although we believe these non-GAAP financial measures provide a greater understanding of our business, these measures are not necessarily comparable to similar measures that may be presented by other companies.

“Total revenue” is defined as net interest income and non-interest income, excluding gains and losses on the sale of investment securities available-for-sale. We believe adjustments made to our operating revenue allow management and investors to better assess our operating revenue by removing the volatility that is associated with certain other items that are unrelated to our core business.

“Pre-tax, pre-provision net revenue” is defined as net income, without giving effect to loan loss provision and income taxes, and excluding gains and losses on the sale of investment securities available-for-sale. We believe this measure is important because it allows management and investors to better assess our performance in relation to our core operating revenue, excluding the volatility that is associated with provision for loan losses or other items that are unrelated to our core business.

“Efficiency ratio” is defined as non-interest expense, excluding non-recurring acquisition related expenses and intangible amortization expense, where applicable, divided by our total revenue. We believe this measure, particularly at the Bank, allows management and investors to better assess our operating expenses in relation to our core operating revenue by removing the volatility that is associated with certain one-time items and other discrete items that are unrelated to our core business.

	Three Months Ended March 31,	
(Dollars in thousands)	2016	2015
Pre-tax, pre-provision net revenue:		
Net interest income	$18,280	$16,456
Total non-interest income	9,012	9,058

Less: net gain on the sale of investment securities available-for-sale	1	17
Total revenue	27,291	25,497
Less: total non-interest expense	18,006	17,102
Pre-tax, pre-provision net revenue	$9,285	$8,395
Efficiency ratio:		
Total non-interest expense	$18,006	$17,102
Less: non-recurring acquisition related expenses	1	—
Less: intangible amortization expenses	390	389
Total non-interest expense (numerator)	$17,615	$16,713
Total revenue (denominator)	$27,291	$25,497
Efficiency ratio	64.55 %	65.55 %

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BANK SEGMENT

(Dollars in thousands)	Three Months Ended March 31, 2016	2015
Bank pre-tax, pre-provision net revenue:		
Net interest income	$18,758	$16,941
Total non-interest income	1,993	1,402
Less: net gain on the sale of investment securities available-for-sale	1	17
Total revenue	20,750	18,326
Less: total non-interest expense	12,325	11,254
Pre-tax, pre-provision net revenue	$8,425	$7,072
Bank efficiency ratio:		
Total non-interest expense (numerator)	$12,325	$11,254
Total revenue (denominator)	$20,750	$18,326
Efficiency ratio	59.40 %	61.41 %

Results of Operations

Net Interest Income

Net interest income represents the difference between the interest and fees earned on interest-earning assets and the interest paid on interest-bearing liabilities. Net interest income is affected by changes in the volume of interest-earning assets and interest-bearing liabilities and changes in interest yields earned and rates paid. Maintaining consistent spreads between earning assets and interest-bearing liabilities is significant to our financial performance because net interest income comprised 67.0% and 64.5% of total revenue for the three months ended March 31, 2016 and 2015, respectively.

The table below reflects an analysis of net interest income, on a fully taxable equivalent basis, for the periods indicated. The adjustment to convert certain income to a fully taxable equivalent basis consists of dividing tax exempt income by one minus the statutory federal income tax rate of 35.0%.

(Dollars in thousands)	Three Months Ended March 31, 2016	2015
Interest income	$23,263	$19,995
Fully taxable equivalent adjustment	72	58
Interest income adjusted	23,335	20,053
Less: interest expense	4,983	3,539
Net interest income adjusted	$18,352	$16,514
Yield on earning assets	2.96 %	2.96 %
Cost of interest-bearing liabilities	0.71 %	0.60 %
Net interest spread	2.25 %	2.36 %
Net interest margin (1)	2.33 %	2.44 %

(1) Net interest margin is calculated on a fully taxable equivalent basis.

The following table provides information regarding the average balances and yields earned on interest-earning assets and the average balances and rates paid on interest-bearing liabilities for the three months ended March 31, 2016 and 2015. Non-accrual loans are included in the calculation of the average loan balances, while interest collected on

non-accrual loans is recorded as a reduction to principal. Where applicable, interest income and yield are reflected on a fully taxable equivalent basis, and have been adjusted based on the statutory federal income tax rate of 35.0%.

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(Dollars in thousands)	Three Months Ended March 31, 2016				2015			
	Average Balance	Interest Income [1]/ Expense	Average Yield/ Rate		Average Balance	Interest Income [1]/ Expense	Average Yield/ Rate	
Assets								
Interest-earning deposits	$102,680	$133	0.52	%	$118,761	$102	0.35	%
Federal funds sold	6,053	5	0.33	%	5,807	1	0.07	%
Investment securities available-for-sale	176,307	743	1.69	%	161,484	488	1.23	%
Investment securities held-to-maturity	47,278	466	3.96	%	35,744	352	3.99	%
Total loans	2,834,964	21,988	3.12	%	2,425,211	19,110	3.20	%
Total interest-earning assets	3,167,282	23,335	2.96	%	2,747,007	20,053	2.96	%
Other assets	146,413				132,327			
Total assets	$3,313,695				$2,879,334			
Liabilities and Shareholders' Equity								
Interest-bearing deposits:								
Interest-bearing checking accounts	$144,473	$153	0.43	%	$115,543	$120	0.42	%
Money market deposit accounts	1,551,068	2,207	0.57	%	1,259,148	1,220	0.39	%
Time deposits (excluding CDARS®)	439,896	985	0.90	%	442,402	987	0.90	%
CDARS® time deposits	453,553	793	0.70	%	422,955	565	0.54	%
Borrowings:								
FHLB borrowing	187,253	291	0.63	%	100,389	93	0.38	%
Subordinated notes payable, net	34,326	554	6.49	%	34,123	554	6.58	%
Total interest-bearing liabilities	2,810,569	4,983	0.71	%	2,374,560	3,539	0.60	%
Noninterest-bearing deposits	151,940				161,850			
Other liabilities	22,550				35,147			
Shareholders' equity	328,636				307,777			
Total liabilities and shareholders' equity	$3,313,695				$2,879,334			
Net interest income [1]		$18,352				$16,514		
Net interest spread			2.25	%			2.36	%
Net interest margin [1]			2.33	%			2.44	%

(1) Net interest income and net interest margin are calculated on a fully taxable equivalent basis.

Net Interest Income for the Three Months Ended March 31, 2016 and 2015. Net interest income, calculated on a fully taxable equivalent basis, increased $1.8 million, or 11.1%, to $18.4 million for the three months ended March 31, 2016, from $16.5 million for the same period in 2015. The increase in net interest income for the three months ended March 31, 2016, was primarily attributable to a $420.3 million, or 15.3%, increase in average interest-earning assets driven largely by loan growth. The increase in net interest income reflects an increase of $3.3 million, or 16.4%, in interest income, partially offset by an increase of $1.4 million, or 40.8%, in interest expense. Net interest margin decreased to 2.33% for the three months ended March 31, 2016, as compared to 2.44% for the same period in 2015, driven by higher interest expense associated with the higher average deposits and FHLB borrowings.

The increase in interest income was primarily the result of an increase in average total loans of $409.8 million, or 16.9%, which is our primary earning asset and the Bank’s core business, an increase of $26.4 million, or 13.4%, in average investment securities balances and an increase of 46 basis points in yield on investment securities available-for-sale, partially offset by a decrease of eight basis points in yield on our loans. The most significant factor

of the declining yield on our loan portfolio has been our shift toward lower-risk assets, most notably the marketable-securities-backed private banking loan portfolio that the Bank has made its fastest growing channel, which was partially offset by the effect on our floating-rate loans due to the Federal Reserve's increase in the target federal funds rate in December 2015. The overall yield on interest-earning assets remained constant at 2.96% for the three months ended March 31, 2016, as compared to the same period in 2015.

Interest expense on interest-bearing liabilities of $5.0 million, for the three months ended March 31, 2016, increased $1.4 million, or 40.8%, from the same period in 2015, as a result of an increase of $436.0 million, or 18.4%, in average interest-bearing liabilities for the three months ended March 31, 2016, coupled with an increase of 11 basis points in the average rate paid on our average interest-bearing liabilities compared to the same period in 2015. The increase in average rate paid was reflective of increases in rates paid in money

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market deposits, CDARS® time deposits and FHLB borrowings. The increase in average interest-bearing liabilities was driven primarily by an increase of $291.9 million, or 23.2%, in average money market deposit accounts and an increase of $86.9 million, or 86.5%, in the average balance of FHLB borrowings.

The following table analyzes the dollar amount of the change in interest income and interest expense with respect to the primary components of interest-earning assets and interest-bearing liabilities. The table shows the amount of the change in interest income or interest expense caused by either changes in outstanding balances or changes in interest rates for the three months ended March 31, 2016 and 2015. The effect of a change in balances is measured by applying the average rate during the first period to the balance ("volume") change between the two periods. The effect of changes in rate is measured by applying the change in rate between the two periods to the average volume during the first period.

	Three Months Ended March 31, 2016 over 2015		
(Dollars in thousands)	Yield/Rate	Volume	Change[(1)]
Increase (decrease) in:			
Interest income:			
Interest-earning deposits	$46	$(15)	$ 31
Federal funds sold	4	—	4
Investment securities available-for-sale	205	50	255
Investment securities held-to-maturity	(4)	118	114
Total loans	(495)	3,373	2,878
Total increase (decrease) in interest income	(244)	3,526	3,282
Interest expense:			
Interest-bearing deposits:			
Interest-bearing checking accounts	1	32	33
Money market deposit accounts	653	334	987
Time deposits (excluding CDARS®)	(1)	(1)	(2)
CDARS® time deposits	183	45	228
Borrowings:			
FHLB borrowing	86	112	198
Subordinated notes payable, net	(5)	5	—
Total increase in interest expense	917	527	1,444
Total increase (decrease) in net interest income	$(1,161)	$2,999	$ 1,838

(1) The change in interest income and expense due to change in composition and applicable yields and rates has been allocated to volume and rate changes in proportion to the relationship of the absolute dollar amounts of the change in each.

Provision for Loan Losses

The provision for loan losses represents our determination of the amount necessary to be charged against the current period's earnings to maintain the allowance for loan losses at a level that is considered adequate in relation to the estimated losses inherent in the loan portfolio. For additional information regarding our allowance for loan losses, see "Allowance for Loan Losses."

Provision for Loan Losses for the Three Months Ended March 31, 2016 and 2015. We recorded provision for loan losses of $122,000 for the three months ended March 31, 2016, compared to $925,000 for the three months ended March 31, 2015. The provision for the three months ended March 31, 2016, was comprised of a net increase of

$993,000 in specific reserves on commercial and industrial non-performing loans and an increase of $322,000 in general reserves on commercial real estate loans due to growth, partially offset by a decrease of $593,000 in general reserves on commercial and industrial loans, due to decreases in loan balances, recoveries of $450,000, and a decrease of $133,000 of specific reserves on private banking non-performing loans. The provision for loan losses for the three months ended March 31, 2015, was comprised of the net increase of $1.6 million in specific reserves on non-performing commercial and industrial loans and an increase of $218,000 in the general reserve of the commercial real estate portfolio due to growth, partially offset by a decrease of $878,000 in commercial and industrial general reserves primarily due to overall decreases in this loan portfolio.

Non-Interest Income

Non-interest income is an important component of our revenue and it is comprised primarily of investment management fees for Chartwell coupled with fees generated from loan and deposit relationships with our Bank customers, including swap transactions. In addition, from

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time to time as opportunities arise, we sell portions of our investment securities available-for-sale portfolio. Gains or losses experienced on these sales are less predictable than many of the other components of our non-interest income because the amount of realized gains or losses is impacted by a number of factors, including the nature of the security sold, the purpose of the sale, the interest rate environment and other market conditions. The information provided under the caption "Parent and Other" represents operations not considered to be reportable segments and/or general operating expenses of the Company, which includes the parent company activity as well as eliminations and adjustments that are necessary for purposes of reconciliation to the consolidated amounts.

The following table presents the components of our non-interest income by operating segment for the three months ended March 31, 2016 and 2015:

	Three Months Ended March 31, 2016				Three Months Ended March 31, 2015			
(Dollars in thousands)	Bank	Investment Management	Parent and Other	Consolidated	Bank	Investment Management	Parent and Other	Consolidated
Investment management fees	$—	$ 7,073	$ (54)	$ 7,019	$—	$ 7,702	$ (47)	$ 7,655
Service charges	136	—	—	136	163	—	—	163
Net gain on the sale of investment securities available-for-sale	1	—	—	1	17	—	—	17
Swap fees	1,240	—	—	1,240	317	—	—	317
Commitment and other fees	502	—	—	502	507	—	—	507
Other income [(1)]	114	—	—	114	398	1	—	399
Total non-interest income	$ 1,993	$ 7,073	$ (54)	$ 9,012	$ 1,402	$ 7,703	$ (47)	$ 9,058

(1) Other income includes such items as income from BOLI, unrealized gain (loss) on swaps, FHLB stock dividends, gain on the sale of REO and other general operating income.

Non-Interest Income for the Three Months Ended March 31, 2016 and 2015. Our non-interest income was $9.0 million for the three months ended March 31, 2016, a decrease of $46,000, or 0.5%, from $9.1 million for the same period in 2015, of which $591,000 relates to the increase in income of the Bank segment and $630,000 relates to the decrease in income of the Investment Management segment. The significant changes in each segment's expenses are described below.

Investment Management Segment:

- Investment management fees decreased $629,000 for the three months ended March 31, 2016, as compared to the same period in 2015, driven by market volatility during the quarter. Assets under management of $8.58 billion as of March 31, 2016, increased $475.0 million from March 31, 2015, largely due to new client assets added late in the quarter.

Bank Segment:

- Swap fees increased $923,000 for the three months ended March 31, 2016, as compared to the same period in 2015, driven by fluctuations in customer demand for long-term interest rate protection. The level and frequency of income associated with swap transactions can vary materially from period to period, based on customers' expectations of market conditions.

- Other income decreased $284,000 for the three months ended March 31, 2016, as compared to the same period in 2015, primarily due to a decrease of $226,000 in the fair values of our swaps, $111,000 lower dividends on FHLB stock, partially offset by an increase of $50,000 in BOLI income.

Non-Interest Expense

Our non-interest expense represents the operating cost of maintaining and growing our business. The largest portion of non-interest expense for each segment is compensation and employee benefits, which include employee payroll expense as well as the cost of incentive compensation, benefit plans, health insurance and payroll taxes, all of which are impacted by the growth in our employee base, coupled with increases in the level of compensation and benefits of our existing employees. The information provided under the caption “Parent and Other” represents operations not considered to be reportable segments and/or general operating expenses of the Company, which includes the parent company activity as well as eliminations and adjustments that are necessary for purposes of reconciliation to the consolidated amounts.

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The following table presents the components of our non-interest expense by operating segment for the three months ended March 31, 2016 and 2015:

	Three Months Ended March 31, 2016				Three Months Ended March 31, 2015			
(Dollars in thousands)	Bank	Investment Management	Parent and Other	Consolidated	Bank	Investment Management	Parent and Other	Consolidated
Compensation and employee benefits	$7,719	$ 4,214	$ —	$ 11,933	$6,838	$ 4,576	$—	$ 11,414
Premises and occupancy costs	923	206	—	1,129	935	187	—	1,122
Professional fees	725	128	(52)	801	827	96	(47)	876
FDIC insurance expense	522	—	—	522	468	—	—	468
General insurance expense	179	66	—	245	245	49	—	294
State capital shares tax	329	—	—	329	273	—	—	273
Travel and entertainment expense	402	175	—	577	360	166	—	526
Data processing expense	292	—	—	292	262	—	—	262
Intangible amortization expense	—	390	—	390	—	389	—	389
Other operating expenses [(1)]	1,234	504	50	1,788	1,046	424	8	1,478
Total non-interest expense	$12,325	$ 5,683	$ (2)	$ 18,006	$11,254	$ 5,887	$(39)	$ 17,102
Full-time equivalent employees [(2)]	138	53	—	191	133	53	—	186

(1) Other operating expenses includes such items as organizational dues and subscriptions, charitable contributions, telephone, marketing, employee-related expenses and other general operating expenses.
(2) Full-time equivalent employees shown are as of the end of the periods presented.

Non-Interest Expense for the Three Months Ended March 31, 2016 and 2015. Our non-interest expense for the three months ended March 31, 2016, increased $904,000, or 5.3%, as compared to the same period in 2015, of which $1.1 million relates to the increase in expenses of the Bank segment and $204,000 relates to the decrease in expenses of the Investment Management segment. The significant changes in each segment's expenses are described below.

Investment Management Segment:

- Chartwell's compensation and employee benefits costs for the three months ended March 31, 2016, decreased by $362,000, compared to the same period in 2015, primarily due to lower incentive compensation correlated to the decrease in investment management fees for the quarter.

Bank Segment:

- The Bank's compensation and employee benefits costs for the three months ended March 31, 2016, increased by $881,000, compared to the same period in 2015, primarily due to an increase in the number of full-time equivalent employees, increases in the overall annual wage and benefits costs of our existing employees, and an increase in stock-based compensation expense.

- Professional fees decreased by $102,000 for the three months ended March 31, 2016, compared to the same period in 2015, primarily driven by lower legal workout related expenses due to fewer non-performing loans.

- Other operating expenses for the three months ended March 31, 2016, increased by $188,000, compared to the same period in 2015, primarily due to higher costs related to servicing our private banking margin loans.

Income Taxes

We utilize the asset and liability method of accounting for income taxes. Under this method, deferred tax assets and liabilities are recognized for the tax effects of differences between the financial statement and tax basis of assets and liabilities. Deferred tax assets and liabilities are measured using the enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities with regard to a change in tax rates is recognized in income in the period that includes the enactment date. We evaluate whether it is more likely than not that we will be able to realize the benefit of identified deferred tax assets.

Income Taxes for the Three Months Ended March 31, 2016 and 2015. For the three months ended March 31, 2016, we recognized income tax expense of $3.3 million, or 36.2% of income before tax, as compared to income tax expense of $2.4 million, or 32.5% of income

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before tax, for the same period in 2015. Our effective tax rate of 36.2% for the three months ended March 31, 2016, increased as compared to the prior year due to investment tax credits recognized in 2015 but not in 2016.

Financial Condition

Our total assets as of March 31, 2016, were $3.40 billion, which was an increase of $97.7 million, or 11.9% on an annualized basis, from December 31, 2015, driven by growth in our loan and investments portfolios. As of March 31, 2016, our loan portfolio of $2.90 billion, increased $55.3 million, or 7.8% annualized, from December 31, 2015. Total investment securities increased $18.2 million, or 33.9% annualized, to $233.8 million, as of March 31, 2016, from $215.6 million, as of December 31, 2015, primarily as a result of purchases of investment grade corporate bonds. Cash and cash equivalents increased $13.8 million, to $110.5 million, as of March 31, 2016, from $96.7 million, as of December 31, 2015. As of March 31, 2016, our total deposits of $2.76 billion increased $66.4 million, or 9.9% annualized, from December 31, 2015, primarily to fund loan growth. Net borrowings increased $30.1 million, to $284.4 million, as of March 31, 2016, from $254.3 million as of December 31, 2015. Our shareholders' equity increased $4.3 million to $330.2 million as of March 31, 2016, from $326.0 million as of December 31, 2015. This increase was primarily the result of $5.8 million in net income, partially offset by the purchase of $1.7 million in treasury stock.

Loans

The Bank's primary source of income is interest on loans. Our loan portfolio primarily consists of loans to our private banking clients, commercial and industrial loans, and real estate loans secured by commercial properties. The loan portfolio represents our largest earning asset.

The following table presents the composition of our loan portfolio as of the dates indicated:

	March 31, 2016		December 31, 2015	
(Dollars in thousands)	Outstanding	Percent of Loans	Outstanding	Percent of Loans
Private banking loans	$1,368,971	47.3 %	$1,344,864	47.3 %
Middle-market banking loans:				
Commercial and industrial	612,272	21.1 %	634,232	22.4 %
Commercial real estate	915,360	31.6 %	862,188	30.3 %
Total middle-market banking loans	1,527,632	52.7 %	1,496,420	52.7 %
Loans held-for-investment	$2,896,603	100.0%	$2,841,284	100.0%

Loans Held-for-Investment. Loans held-for-investment increased by $55.3 million, or 7.8% on an annualized basis, to $2.90 billion as of March 31, 2016, as compared to December 31, 2015. Our growth for the three months ended March 31, 2016, was comprised of an increase in private banking loans of $24.1 million, or 7.2% annualized, a decrease in commercial and industrial loans of $22.0 million, or 13.9% annualized, and an increase in commercial real estate loans of $53.2 million, or 24.8% annualized.

Primary Loan Categories

Private Banking Loans. Our private banking loans include personal and commercial loans that are sourced through our private banking channel that operates on a national basis. These loans primarily consist of loans made to high-net-worth individuals, trusts and businesses that may be secured by cash, marketable securities, residential property or other financial assets. The primary source of repayment for these loans is the income and assets of the borrower. We also have a limited number of unsecured loans and lines of credit in our private banking loan portfolio.

As of March 31, 2016 there was $1.21 billion, or 88.8%, of private banking loans that were secured by cash and marketable securities as compared to $1.18 billion, or 87.8%, as of December 31, 2015. Our private banking lines of credit are typically due on demand or if they have stated maturities, the term is predominately less than one year. The growth in loans secured by cash and marketable securities is expected to continue as a result of our strategy to focus on this portion of our private banking business as we believe these loans tend to have a lower risk profile. On a daily basis, we monitor the collateral of these margin loans secured by cash and marketable securities, which further reduces the risk profile of the private banking portfolio. Since inception, we have had no charge-offs related to our loans secured by cash and marketable securities.

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Loans sourced through our private banking channel also include loans for commercial and business purposes, a majority of which are secured by cash and marketable securities. The table below includes all loans made through our private banking channel, by collateral type, as of the dates indicated.

(Dollars in thousands)	March 31, 2016	December 31, 2015
Private banking loans:		
Secured by cash and marketable securities	$1,214,979	$ 1,180,717
Secured by real estate	125,310	134,785
Other	28,682	29,362
Total private banking loans	$1,368,971	$ 1,344,864

Middle-Market Banking - Commercial and Industrial Loans. Our commercial and industrial loan portfolio primarily includes loans made to service companies or manufacturers generally for the purpose of production, operating capacity, accounts receivable, inventory, equipment financing, acquisitions and recapitalizations. Cash flow from the borrower’s operations is the primary source of repayment for these loans, except for certain commercial loans that are secured by cash and marketable securities.

Middle-Market Banking - Commercial Real Estate Loans. Our commercial real estate loan portfolio includes loans secured by commercial purpose real estate, including both owner occupied properties and investment properties for various purposes including office, retail, industrial, multifamily and hospitality. Also included are commercial construction loans to finance the construction or renovation of structures as well as to finance the acquisition and development of raw land for various purposes. Individual project cash flows, global cash flows and liquidity from the developer, or the sale of the property are the primary sources of repayment for these loans.

As of March 31, 2016, there were $710.4 million of total commercial real estate loans with a floating rate and $204.9 million with a fixed rate, as compared to $650.0 million and $212.2 million, respectively, as of December 31, 2015.

Loan Maturities and Interest Rate Sensitivity

The following table presents the contractual maturity ranges and the amount of such loans with fixed and adjustable rates in each maturity range as of the date indicated.

	March 31, 2016			
(Dollars in thousands)	One Year or Less	One to Five Years	Greater Than Five Years	Total
Loan maturity:				
Private banking	$1,206,841	$114,736	$47,394	$1,368,971
Commercial and industrial	123,788	440,543	47,941	612,272
Commercial real estate	172,602	484,975	257,783	915,360
Loans held-for-investment	$1,503,231	$1,040,254	$353,118	$2,896,603
Interest rate sensitivity:				
Fixed interest rates	$104,974	$195,115	$118,151	$418,240
Floating or adjustable interest rates	1,398,257	845,139	234,967	2,478,363
Loans held-for-investment	$1,503,231	$1,040,254	$353,118	$2,896,603

Interest Reserve Loans

As of March 31, 2016, loans with interest reserves totaled $117.1 million, which represented 4.0% of loans held-for-investment, as compared to $117.4 million, or 4.1%, as of December 31, 2015. Certain loans reserve a portion of the proceeds to be used to pay interest due on the loan. These loans with interest reserves are common for construction and land development loans. The use of interest reserves is based on the feasibility of the project, the creditworthiness of the borrower and guarantors, and the loan to value coverage of the collateral. The interest reserve may be used by the borrower, when certain financial conditions are met, to draw loan funds to pay interest charges on the outstanding balance of the loan. When drawn, the interest is capitalized and added to the loan balance, subject to conditions specified during the initial underwriting and at the time the credit is approved. We have effective and ongoing procedures and controls for monitoring compliance with loan covenants, for advancing funds and determining default conditions. In addition, most of our construction lending is performed within our geographic footprint and our lenders are familiar with trends in the local real estate market.

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Allowance for Loan Losses

Our allowance for loan losses represents our estimate of probable loan losses inherent in the loan portfolio at a specific point in time. This estimate includes losses associated with specifically identified loans, as well as estimated probable credit losses inherent in the remainder of the loan portfolio. Additions are made to the allowance through both periodic provisions charged to income and recoveries of losses previously incurred. Reductions to the allowance occur as loans are charged off or when the credit history of any of the three loan portfolios improves. Management evaluates the adequacy of the allowance quarterly. This evaluation is subjective and requires material estimates that may change over time. In addition, management evaluates the allowance for loan losses overall methodology and estimates used in the calculation on an annual basis.

The components of the allowance for loan losses represent estimates based upon ASC Topic 450, Contingencies, and ASC Topic 310, Receivables. ASC Topic 450 applies to homogeneous loan pools such as consumer installment, residential mortgages and consumer lines of credit, as well as commercial loans that are not individually evaluated for impairment under ASC Topic 310. ASC Topic 310 is applied to commercial and consumer loans that are individually evaluated for impairment.

Under ASC Topic 310, a loan is impaired, based upon current information and events, in management’s opinion, when it is probable that the loan will not be repaid according to its original contractual terms, including both principal and interest, or if a loan is designated as a TDR. Management performs individual assessments of impaired loans to determine the existence of loss exposure based upon a discounted cash flows method or where a loan is collateral dependent, based upon the fair value of the collateral less estimated selling costs.

In estimating probable loan loss under ASC Topic 450 we consider numerous factors, including historical charge-offs and subsequent recoveries. We also consider, but are not limited to, qualitative factors that influence our credit quality, such as delinquency and non-performing loan trends, changes in loan underwriting guidelines and credit policies, as well as the results of internal loan reviews. Finally, we consider the impact of changes in current local and regional economic conditions in the markets that we serve. Assessment of relevant economic factors indicates that some of our primary markets historically tend to lag the national economy, with local economies in those primary markets also improving or weakening, as the case may be, but at a more measured rate than the national trends.

We base the computation of the allowance for loan losses under ASC Topic 450 on two factors: the primary factor and the secondary factor. The primary factor is based on the inherent risk identified within each of the Company’s three loan portfolios based on the historical loss experience of each loan portfolio and the loss emergence period. Management has developed a methodology that is applied to each of our three primary loan portfolios, consisting of commercial and industrial, commercial real estate and private banking. As the loan loss history, mix and risk rating of each loan portfolio change, the primary factor adjusts accordingly. The allowance for loan losses related to the primary factor is based on our estimates as to probable losses for each loan portfolio. The secondary factor is intended to capture risks related to events and circumstances that management believes have an impact on the performance of the loan portfolio. Although this factor is more subjective in nature, the methodology focuses on internal and external trends in pre-specified categories (risk factors) and applies a quantitative percentage that drives the secondary factor. We have identified nine risk factors and each risk factor is assigned a reserve level, based on management’s judgment, as to the probable impact on each loan portfolio and is monitored on a quarterly basis. As the trend in each risk factor changes, a corresponding change occurs in the reserve associated with each respective risk factor, such that the secondary factor remains current to changes in each loan portfolio. Potential problem loans are identified and monitored through frequent, formal review processes. Updates are presented to our board of directors as to the status of loan quality at least quarterly.

The following table summarizes the allowance for loan losses, as of the dates indicated:

(Dollars in thousands)	March 31, 2016	December 31, 2015
General reserves	$13,141	$ 13,429
Specific reserves	5,405	4,545
Total allowance for loan losses	$18,546	$ 17,974
Allowance for loan losses to loans	0.64 %	0.63 %

As of March 31, 2016, we had specific reserves totaling $5.4 million related to three commercial and industrial loans and two private banking loans, with an aggregated total outstanding balance of $18.2 million. All of these loans were on non-accrual status as of March 31, 2016.

As of December 31, 2015, we had specific reserves totaling $4.5 million related to three commercial and industrial loans and two private banking loans, with an aggregated total outstanding balance of $12.5 million. All of these loans were on non-accrual status as of December 31, 2015.

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The following table summarizes allowance for loan losses by loan category and percentage of loans, as of the dates indicated:

(Dollars in thousands)	March 31, 2016			December 31, 2015		
	Reserve	Percent of Reserve	Percent of Loans	Reserve	Percent of Reserve	Percent of Loans
Commercial and industrial	$11,464	61.8 %	21.1 %	$11,064	61.6 %	22.4 %
Commercial real estate	5,666	30.6 %	31.6 %	5,344	29.7 %	30.3 %
Private banking	1,416	7.6 %	47.3 %	1,566	8.7 %	47.3 %
Total allowance for loan losses	$18,546	100.0 %	100.0 %	$17,974	100.0 %	100.0 %

Allowance for Loan Losses as of March 31, 2016 and December 31, 2015. Our allowance for loan losses increased to $18.5 million, or 0.64% of loans, as of March 31, 2016, as compared to $18.0 million, or 0.63% of loans, as of December 31, 2015. Our allowance for loan losses related to commercial and industrial loans increased $400,000 to $11.5 million as of March 31, 2016, as compared to $11.1 million as of December 31, 2015. This increase was attributable to an increase of $993,000 in specific reserves largely related to an addition of one non-performing loan, partially offset by a decrease of $593,000 in general reserves related primarily to overall decreases in the commercial and industrial loan balances. Our allowance for loan losses related to commercial real estate loans increased by $322,000 to $5.7 million as of March 31, 2016, as compared to $5.3 million as of December 31, 2015, primarily due to the growth in the commercial real estate loan portfolio. Our allowance for loan losses related to private banking loans decreased $150,000 to $1.4 million as of March 31, 2016, from $1.6 million as of December 31, 2015. This decrease was attributable to lower specific reserves related to paydowns on non-performing loans.

Net Charge-Offs

Our charge-off policy for commercial and private banking loans requires that loans and other obligations that are not collectible to be promptly charged off in the month the loss becomes probable, regardless of the delinquency status of the loan. We recognize a partial charge-off when we have determined that the value of the collateral is less than the remaining ledger balance at the time of the evaluation. A loan or obligation is not required to be charged off, regardless of delinquency status, if (1) we have determined there exists sufficient collateral to protect the remaining loan balance and (2) there exists a strategy to liquidate the collateral. We may also consider a number of other factors to determine when a charge-off is appropriate, including:

- the status of a bankruptcy proceeding;
- the value of collateral and probability of successful liquidation; and
- the status of adverse proceedings or litigation that may result in collection.

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The following table provides an analysis of the allowance for loan losses and net charge-offs/recoveries for the periods indicated:

	Three Months Ended March 31,	
(Dollars in thousands)	2016	2015
Beginning balance	$17,974	$20,273
Charge-offs:		
Commercial and industrial	—	—
Commercial real estate	—	—
Private banking	—	—
Total charge-offs	—	—
Recoveries:		
Commercial and industrial	450	7
Commercial real estate	—	—
Private banking	—	—
Total recoveries	450	7
Net recoveries (charge-offs)	450	7
Provision for loan losses	122	925
Ending balance	$18,546	$21,205
Net loan charge-offs (recoveries) to average total loans [1]	(0.06)%	— %
Provision for loan losses to average total loans [1]	0.02 %	0.15 %
Allowance for loan losses to net loan charge-offs (recoveries) [1]	n/m	n/m
Provision for loan losses to net loan charge-offs (recoveries)	(27.11)%	n/m

[1] Interim period ratios are annualized.
n/m: Not meaningful

Net Charge-Offs (Recoveries) for the Three Months Ended March 31, 2016. Our net loan recoveries of $450,000, or 0.06% of average loans on an annualized basis, for the three months ended March 31, 2016, were related to three commercial and industrial loans.

Net Charge-Offs (Recoveries) for the Three Months Ended March 31, 2015. Our net loan recovery of $7,000 for the three months ended March 31, 2015, was related to one commercial and industrial loan.

Non-Performing Assets

Non-performing assets consist of non-performing loans and other real estate owned. Non-performing loans consist of loans that are on non-accrual status. OREO is real property acquired through foreclosure on the collateral underlying defaulted loans and includes in-substance foreclosures. We initially record OREO at the lower of the related loan balance or fair value, less estimated costs to sell the assets.

Our policy is to place loans in all categories on non-accrual status when collection of interest or principal is doubtful, or when interest or principal payments are 90 days or more past due. There were no loans 90 days or more past due and still accruing interest as of March 31, 2016 and December 31, 2015, and there was no interest income recognized on these loans, while on non-accrual status, for the three months ended March 31, 2016 and 2015. As of March 31, 2016, non-performing loans were $21.2 million, or 0.73% of total loans, compared to $16.7 million, or 0.59% of total loans, as of December 31, 2015. We had specific reserves of $5.4 million and $4.5 million as of March 31, 2016 and December 31, 2015, respectively, on these non-performing loans. The net loan balance of our non-performing loans was 50.1% and 38.0% of the original loan balance after payments, charge-offs and specific reserves as of March 31,

2016 and December 31, 2015, respectively.

For additional information on our non-performing loans for March 31, 2016 and December 31, 2015, refer to Note 4, Allowance for Loan Losses, to our consolidated financial statements.

Once the determination is made that a foreclosure is necessary, the loan is reclassified as “in-substance foreclosure” until a sale date and title to the property is finalized. Once we own the property, it is maintained, marketed, rented and sold to repay the original loan. Historically, foreclosure trends in our loan portfolio have been low due to the seasoning of our portfolio. Any loans that are modified or extended are reviewed for potential classification as a TDR loan. For borrowers that are experiencing financial difficulty, we complete a process that outlines the terms of the modification, the reasons for the proposed modification and documents the current status of the borrower.

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We had non-performing assets of $22.9 million, or 0.67% of total assets, as of March 31, 2016, as compared to $18.4 million, or 0.56% of total assets, as of December 31, 2015. The increase in non-performing assets was primarily the result of an addition of one $7.0 million non-performing loan, partially offset by $2.5 million in paydowns and three payoffs on non-performing loans during the three months ended March 31, 2016. This increase was considered within the assessment of the determination of the allowance for loan losses. As of March 31, 2016 and December 31, 2015, we had three OREO properties totaling $1.7 million.

The following table summarizes our non-performing assets as of the dates indicated:

(Dollars in thousands)	March 31, 2016		December 31, 2015	
Non-performing loans:				
Commercial and industrial	$17,628		$ 11,800	
Commercial real estate	2,912		2,912	
Private banking	612		1,948	
Total non-performing loans	$21,152		$ 16,660	
Other real estate owned	1,730		1,730	
Total non-performing assets	$22,882		$ 18,390	
Non-performing troubled debt restructured loans [(1)]	$10,648		$ 12,894	
Performing troubled debt restructured loans	$492		$ 510	
Non-performing loans to total loans	0.73	%	0.59	%
Allowance for loan losses to non-performing loans	87.68	%	107.89	%
Non-performing assets to total assets	0.67	%	0.56	%

(1) Included in total non-performing loans.

Potential Problem Loans

Potential problem loans are those loans that are not categorized as non-performing loans, but where current information indicates that the borrower may not be able to comply with repayment terms. Among other factors, we monitor past due status as an indicator of credit deterioration and potential problem loans. A loan is considered past due when the contractual principal or interest due in accordance with the terms of the loan agreement remains unpaid after the due date of the scheduled payment. To the extent that loans become past due, we assess the potential for loss on such loans as we would with other problem loans and consider the effect of any potential loss in determining any provision for probable loan losses. We also assess alternatives to maximize collection of any past due loans, including and without limitation, restructuring loan terms, requiring additional loan guarantee(s) or collateral, or other planned action.

For additional information on the age analysis of past due loans segregated by class of loan for March 31, 2016 and December 31, 2015, refer to Note 4, Allowance for Loan Losses, to our unaudited condensed consolidated financial statements.

On a monthly basis, we monitor various credit quality indicators for our loan portfolio, including delinquency, non-performing status, changes in risk ratings, changes in the underlying performance of the borrowers and other relevant factors.

We also monitor the loan portfolio through an internal risk rating system on a periodic basis. Loan risk ratings are assigned based upon the creditworthiness of the borrower. Loan risk ratings are reviewed on an ongoing basis according to internal policies. Loans within the pass rating are viewed to have a lower risk of loss than loans that are

risk rated as special mention, substandard and doubtful, which are viewed to have an increasing risk of loss. Our internal risk ratings are consistent with regulatory guidance.

For additional information on the definitions of our internal risk rating and the recorded investment in loans by credit quality indicator for March 31, 2016 and December 31, 2015, refer to Note 4, Allowance for Loan Losses, to our unaudited condensed consolidated financial statements.

Investment Securities

We utilize investment activities to enhance net interest income while supporting interest rate risk management and liquidity management. Our securities portfolio consists of available-for-sale securities, held-to-maturity securities and from time to time, securities held for trading purposes. Securities purchased with the intent to sell under trading activity are recorded at fair value and changes to fair value are recognized in the consolidated statement of income. Securities categorized as available-for-sale are recorded at fair value and changes in the fair value of these securities are recognized as a component of total shareholders' equity, within accumulated other comprehensive

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income (loss), net of deferred taxes. Securities categorized as held-to-maturity are debt securities that the Company intends to hold until maturity and are recorded at amortized cost.

On a quarterly basis, we determine the fair market value of our investment securities based on information provided by external sources. In addition, on a quarterly basis, we conduct an internal evaluation of changes in the fair market value of our investment securities to gain a level of comfort with the market value information received from the external sources.

Securities, like loans, are subject to interest rate and credit risk. In addition, by their nature, securities classified as available-for-sale are also subject to fair value risks that could negatively affect the level of liquidity available to us, as well as shareholders' equity. The Bank has engaged Chartwell to provide securities portfolio advisory services, subject to the investment parameters set forth in our investment policy.

As of March 31, 2016 and December 31, 2015, we reported securities in available-for-sale and held-to-maturity categories. In general, fair value is based upon quoted market prices of identical assets, when available. Where sufficient data is not available to produce a fair valuation, fair value is based on broker quotes for similar assets. Quarterly, we validate the prices received from these third parties by comparing them to prices provided by a different independent pricing service. We have also reviewed the valuation methodologies provided to us by our pricing services. Broker quotes may be adjusted to ensure that financial instruments are recorded at fair value. Adjustments may include unobservable parameters, among other things.

We perform a quarterly review of our investment securities to identify those that may indicate other-than-temporary impairment. Our policy for OTTI is based upon a number of factors, including but not limited to, the length of time and extent to which the estimated fair value has been less than cost, the financial condition of the underlying issuer, the ability of the issuer to meet contractual obligations, the likelihood of the investment security's ability to recover any decline in its estimated fair value and whether we intend to sell the investment security or if it is more likely than not that we will be required to sell the investment security prior to its recovery. If the financial markets experience deterioration, charges to income could occur in future periods as a result of OTTI determinations.

Our available-for-sale securities portfolio consists of U.S. government agency obligations, mortgage-backed securities, collateralized loan obligations, corporate bonds, single-issuer trust preferred securities, all with varying contractual maturities, and certain equity securities. Our held-to-maturity portfolio consists of certain municipal bonds, agency obligations and corporate bonds while our trading portfolio, when active, typically consists of U.S. Treasury Notes, also with varying contractual maturities. However, these maturities do not necessarily represent the expected life of the securities as the securities may be called or paid down without penalty prior to their stated maturities. The effective duration of our securities portfolio as of March 31, 2016, was approximately 1.8, where duration is defined as the approximate percentage change in price for a 100 basis point change in rates. No investment in any of these securities exceeds any applicable limitation imposed by law or regulation. Our Asset/Liability Management Committee ("ALCO") reviews the investment portfolio on an ongoing basis to ensure that the investments conform to our investment policy.

Available-for-Sale Investment Securities. We held $186.5 million and $168.3 million in investment securities available-for-sale as of March 31, 2016 and December 31, 2015, respectively. The increase of $18.2 million was primarily attributable to the net activity of purchases of $22.3 million, repayments of $2.2 million and sales of $681,000 of certain securities during the three months ended March 31, 2016.

On a fair value basis, 65.0% of our available-for-sale investment securities as of March 31, 2016, were floating-rate securities, for which yields increase or decrease based on changes in market interest rates. As of December 31, 2015, floating-rate securities comprised 74.3% of our available-for-sale investment securities.

On a fair value basis, 43.2% of our available-for-sale investment securities as of March 31, 2016, were agency securities, which tend to have a lower risk profile, while the remainder of the portfolio was comprised of certain corporate bonds, single-issuer trust preferred securities, non-agency commercial mortgage-backed securities and collateralized loan obligations, and certain equity securities. As of December 31, 2015, agency securities comprised 49.2% of our available-for-sale investment securities.

Held-to-Maturity Investment Securities. We held $47.3 million in investment securities held-to-maturity as of March 31, 2016 and December 31, 2015. As part of our asset and liability management strategy, we determined that we have the intent and ability to hold these bonds until maturity, and these securities were reported at amortized cost, as of March 31, 2016.

Trading Investment Securities. We held no investment securities for trading as of March 31, 2016 and December 31, 2015. From time to time, we may identify opportunities in the marketplace to generate supplemental income from trading activity, principally based on the volatility of U.S. Treasury Notes with maturities up to ten years. The level and frequency of income generated from these transactions can vary materially based upon market conditions.

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The following tables summarize the amortized cost and fair value of investment securities available-for-sale and held-to-maturity, as of the dates indicated:

	March 31, 2016			
(Dollars in thousands)	Amortized Cost	Gross Unrealized Appreciation	Gross Unrealized Depreciation	Estimated Fair Value
Investment securities available-for-sale:				
Corporate bonds	$65,342	$ 403	$ 125	$65,620
Trust preferred securities	17,612	—	2,314	15,298
Non-agency mortgage-backed securities	5,752	—	40	5,712
Non-agency collateralized loan obligations	11,703	—	215	11,488
Agency collateralized mortgage obligations	48,097	83	415	47,765
Agency mortgage-backed securities	27,881	263	34	28,110
Agency debentures	4,729	—	53	4,676
Equity securities	8,433	—	564	7,869
Total investment securities available-for-sale	189,549	749	3,760	186,538
Investment securities held-to-maturity:				
Corporate bonds	19,447	561	91	19,917
Agency debentures	2,454	46	—	2,500
Municipal bonds	25,355	572	—	25,927
Total investment securities held-to-maturity	47,256	1,179	91	48,344
Total	$236,805	$ 1,928	$ 3,851	$234,882

	December 31, 2015			
(Dollars in thousands)	Amortized Cost	Gross Unrealized Appreciation	Gross Unrealized Depreciation	Estimated Fair Value
Investment securities available-for-sale:				
Corporate bonds	$43,952	$ 18	$ 237	$43,733
Trust preferred securities	17,579	—	978	16,601
Non-agency mortgage-backed securities	5,756	—	13	5,743
Non-agency collateralized loan obligations	11,843	—	132	11,711
Agency collateralized mortgage obligations	49,544	92	265	49,371
Agency mortgage-backed securities	28,586	270	187	28,669
Agency debentures	4,719	13	—	4,732
Equity securities	8,358	—	599	7,759
Total investment securities available-for-sale	170,337	393	2,411	168,319
Investment securities held-to-maturity:				
Corporate bonds	19,448	498	84	19,862
Agency debentures	2,453	19	—	2,472
Municipal bonds	25,389	377	1	25,765
Total investment securities held-to-maturity	47,290	894	85	48,099
Total	$217,627	$ 1,287	$ 2,496	$216,418

The change in the fair values of our municipal bonds, agency collateralized mortgage obligation and agency mortgage-backed securities are primarily the result of interest rate fluctuations. To assess for impairment on municipal bonds, corporate bonds, single-issuer trust preferred securities, non-agency mortgage-backed securities, non-agency collateralized loan obligations, and certain equity securities, management evaluates the underlying issuer's financial performance and the related credit rating information through a review of publicly available financial statements and

other publicly available information. This review did not identify any issues related to the ultimate repayment of principal and interest on these securities. In addition, the Company has the ability and intent to hold the securities in an unrealized loss position until recovery of their amortized cost. Based on this, the Company considers all of the unrealized losses to be temporary impairment losses.

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The following table sets forth the fair value, contractual maturities and approximated weighted average yield, calculated on a fully taxable equivalent basis, based on estimated annual income divided by the average amortized cost of our available-for-sale and held-to-maturity debt securities portfolios as of March 31, 2016. Contractual maturities may differ from expected maturities because issuers and/or borrowers may have the right to call or prepay obligations with or without call or prepayment penalties, which would also impact the corresponding yield.

	March 31, 2016									
	Less Than One Year		One to Five Years		Five to 10 Years		Greater Than 10 Years		Total	
(Dollars in thousands)	Amount	Yield	Amount	Yield	Amount	Yield	Amount	Yield	Amount	Yield
Investment securities available-for-sale:										
Corporate bonds	$21,985	1.26%	$43,635	2.12%	$—	— %	$—	— %	$65,620	1.83%
Trust preferred securities	—	— %	—	— %	—	— %	15,298	2.48%	15,298	2.48%
Non-agency mortgage-backed securities	—	— %	—	— %	—	— %	5,712	1.26%	5,712	1.26%
Non-agency collateralized loan obligations	—	— %	—	— %	4,913	2.21%	6,575	2.32%	11,488	2.28%
Agency collateralized mortgage obligations	—	— %	1,333	0.93%	—	— %	46,432	0.85%	47,765	0.86%
Agency mortgage-backed securities	—	— %	—	— %	—	— %	28,110	1.84%	28,110	1.84%
Agency debentures	—	— %	—	— %	4,676	2.14%	—	— %	4,676	2.14%
Total debt securities available-for-sale	21,985		44,968		9,589		102,127		178,669	
Weighted average yield		1.26%		2.09%		2.18%		1.51%		1.66%
Investment securities held-to-maturity:										
Corporate bonds	—	— %	5,480	6.38%	14,437	5.31%	—	— %	19,917	5.58%
Agency debentures	—	— %	—	— %	2,500	3.03%	—	— %	2,500	3.03%
Municipal bonds	—	— %	8,438	2.18%	15,994	2.80%	1,495	3.58%	25,927	2.64%
Total debt securities held-to-maturity	—		13,918		32,931		1,495		48,344	
Weighted average yield		— %		3.76%		3.93%		3.58%		3.87%
Total debt securities	$21,985		$58,886		$42,520		$103,622		$227,013	
Weighted average yield		1.26%		2.47%		3.53%		1.53%		2.11%

The table above excludes equity securities because they have an indefinite maturity. For additional information regarding our investment securities portfolios, refer to Note 2, Investment Securities, to our unaudited condensed consolidated financial statements.

Deposits

Deposits are our primary source of funds to support our earning assets and we source deposits through multiple channels. We have focused on creating and growing diversified, stable, and low all-in cost deposit channels without operating through a traditional branch network. These sources primarily include deposits from high-net-worth individuals, family offices, trust companies, wealth management firms, middle-market businesses and their executives, and other financial institutions. We compete for deposits by offering a range of products and services to our customers, at competitive rates. We believe that our deposit base is stable, diversified and provides a low all-in cost. We further believe we have the ability to attract new deposits that will contribute to funding our projected loan

growth.

As of March 31, 2016, we consider nearly 80.0% of our total deposits to be relationship-based deposits. Some of our relationship-based deposits, including reciprocal time deposits placed through Promontory's CDARS® service and demand deposits placed through Promontory's ICS® service, have been classified for regulatory purposes as brokered deposits.

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The table below depicts average balances of and rates paid on our deposit portfolio broken out by major deposit category, for the three months ended March 31, 2016 and 2015.

	Three Months Ended March 31,			
	2016		2015	
(Dollars in thousands)	Average Amount	Average Rate Paid	Average Amount	Average Rate Paid
Interest-bearing checking accounts	$144,473	0.43 %	$115,543	0.42 %
Money market deposit accounts	1,551,068	0.57 %	1,259,148	0.39 %
Time deposits (excluding CDARS®)	439,896	0.90 %	442,402	0.90 %
CDARS® time deposits	453,553	0.70 %	422,955	0.54 %
Total average interest-bearing deposits	2,588,990	0.64 %	2,240,048	0.52 %
Noninterest-bearing deposits	151,940	—	161,850	—
Total average deposits	$2,740,930	0.61 %	$2,401,898	0.49 %

Average Deposits for the Three Months Ended March 31, 2016 and 2015. For the three months ended March 31, 2016, our average total deposits were $2.74 billion, representing an increase of $339.0 million, or 14.1%, from the same period in 2015. The deposit growth was driven by increases in interest-bearing checking accounts, money market deposit accounts and CDARS® time deposit accounts, partially offset by a decrease in noninterest-bearing checking accounts and time deposits. Our average cost of interest-bearing deposits of 0.64%, for the three months ended March 31, 2016, increased from 0.52%, for the same period in 2015, as average rates paid were higher in each deposit category, except for time deposits. Average money market deposits increased to 59.9% of total average interest-bearing deposits, for the three months ended March 31, 2016, from 56.2% for the same period in 2015. Average time deposits decreased to 17.0% of total average interest-bearing deposits for the three months ended March 31, 2016, compared to 19.7% for the same period in 2015. Average CDARS® time deposits decreased to 17.5% of total average interest-bearing deposits, for the three months ended March 31, 2016, from 18.9% for the same period in 2015. Average noninterest-bearing deposits decreased $9.9 million, or 6.1%, to $151.9 million in the three months ended March 31, 2016, from $161.9 million for the three months ended March 31, 2015, and the average cost of deposits increased 12 basis points to 0.61% for the three months ended March 31, 2016 from 0.49% for the three months ended March 31, 2015.

Certificates of Deposits and Other Time Deposits

Maturities of time deposits of $100,000 or more outstanding are summarized below, as of March 31, 2016.

(Dollars in thousands)	March 31, 2016
Months to maturity:	
Three months or less	$184,499
Over three to six months	172,914
Over six to 12 months	187,893
Over 12 months	206,314
Total	$751,620

Borrowings

Deposits are the primary source of funds for our lending and investment activities, as well as the Bank's general business purposes. As an alternative source of liquidity, we may obtain advances from the FHLB of Pittsburgh, sell investment securities subject to our obligation to repurchase them, purchase Federal funds or engage in overnight borrowings from the FHLB or our correspondent banks.

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The following table presents certain information with respect to our outstanding borrowings, as of March 31, 2016 and December 31, 2015.

	March 31, 2016					December 31, 2015				
(Dollars in thousands)	Amount	Rate	Maximum Balance at Any Month End	Average Balance During the Period	Original Term	Amount	Rate	Maximum Balance at Any Month End	Average Balance During the Period	Original Term
Short-term FHLB borrowings	$200,000	0.44 %	$205,000	$137,253	1-4 days	$170,000	0.51 %	$170,000	$62,137	1-9 days
Long-term FHLB borrowings:										
Issued 4/7/2014	—	— %	—	—		—	0.34 %	25,000	6,576	12 months
Issued 4/7/2014	—	— %	—	—		—	0.38 %	25,000	10,822	14 months
Issued 4/7/2014	—	— %	—	—		—	0.44 %	25,000	17,123	17 months
Issued 5/5/2014	—	— %	—	—		—	0.33 %	25,000	2,397	9 months
Issued 7/29/2015	25,000	0.61 %	25,000	25,000	12 months	25,000	0.61 %	25,000	10,685	12 months
Issued 7/29/2015	25,000	0.72 %	25,000	25,000	15 months	25,000	0.72 %	25,000	10,685	15 months
Subordinated notes payable	35,000	5.75 %	35,000	35,000	5 years	35,000	5.75 %	35,000	35,000	5 years
Total borrowings outstanding	$285,000	1.01 %	$290,000	$222,253		$255,000	1.13 %	$355,000	$155,425	

Liquidity

We evaluate liquidity both at the holding company level and at the Bank level. As of March 31, 2016, the Bank and Chartwell subsidiaries represent our only material assets. Our primary sources of funds at the parent company level are cash on hand, dividends paid to us from the Bank and Chartwell subsidiaries and the net proceeds from the issuance of our debt or equity securities. As of March 31, 2016, our primary liquidity needs at the parent company level were the semi-annual interest payments on the subordinated notes payable and funding of the TKG acquisition that closed on April 29, 2016. All other liquidity needs were minimal and related to reimbursing the Bank for management, accounting and financial reporting services provided by bank personnel. During the three months ended March 31, 2016, the parent company paid approximately $1.0 million related to interest payments on the subordinated notes. During the three months ended March 31, 2015, the parent company paid $1.1 million related to interest payments on the subordinated notes. We believe that our cash on hand at the parent company level coupled with the dividend paying capacity of the Bank and Chartwell, were adequate to fund any foreseeable parent company obligations as of March 31, 2016. In addition, the holding company established an unsecured line of credit of $25.0 million, effective December 29, 2015, with Texas Capital Bank. As of March 31, 2016, the full amount of this established line was available.

Our goal in liquidity management at the Bank level is to satisfy the cash flow requirements of depositors and borrowers, as well as our operating cash needs. These requirements include the payment of deposits on demand at their contractual maturity, the repayment of borrowings as they mature, the payment of our ordinary business obligations, the ability to fund new and existing loans and other funding commitments, and the ability to take advantage of new business opportunities. Our ALCO has established an asset/liability management policy designed to achieve and maintain earnings performance consistent with long-term goals while maintaining acceptable levels of interest rate risk, well capitalized regulatory status and adequate levels of liquidity. The ALCO has also established a contingency funding plan to address liquidity crisis conditions. The ALCO is designated as the body responsible for monitoring and implementation of these policies. The ALCO, which includes members of executive management,

reviews liquidity on a frequent basis and approves significant changes in strategies that affect balance sheet or cash flow positions.

Our principal sources of asset liquidity are cash and cash due from banks, interest-earning deposits with banks, federal funds sold, unpledged securities available-for-sale, loan repayments (scheduled and unscheduled) and earnings. Liability liquidity sources include a stable deposit base, the ability to renew maturing certificates of deposit, borrowing availability at the FHLB of Pittsburgh, unsecured lines with other financial institutions, access to the brokered deposit market including CDARS®, and the ability to raise debt and equity. Customer deposits are an important source of liquidity, which depends on the confidence of those customers in us and is supported by our capital position and the protection provided by FDIC insurance.

We measure and monitor liquidity on an ongoing basis, which allows us to more effectively understand and react to trends in our balance sheet. In addition, the ALCO uses a variety of methods to monitor our liquidity position, including a liquidity gap, which measures potential sources and uses of funds over future periods. Policy guidelines have been established for a variety of liquidity-related performance metrics, such as net loans to deposits, brokered funding composition, cash to total loans and duration of time deposits, among

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others, all of which are utilized in measuring and managing our liquidity position. The ALCO performs contingency funding and capital stress analyses at least semi-annually to determine our ability to meet potential liquidity and capital needs under various stress scenarios.

We believe that our liquidity position continues to be strong due to our ability to generate strong growth in deposits, which is evidenced by our ratio of total deposits to total assets of 81.1% and 81.5% as of March 31, 2016 and December 31, 2015, respectively. As of March 31, 2016, we had available liquidity of $567.7 million, or 16.7% of total assets. These sources consisted of liquid assets (cash and cash equivalents, and investment securities available-for-sale and not pledged under the FHLB borrowing capacity), totaling $253.5 million, or 7.5% of total assets, coupled with secondary sources of liquidity (the ability to borrow from the FHLB and correspondent bank lines) totaling $314.2 million, or 9.2% of total assets. Available cash excludes pledged accounts for derivative and letter of credit transactions and the reserve balance requirement at the Federal Reserve.

The following table shows our available liquidity, by source, as of the dates indicated:

(Dollars in thousands)	March 31, 2016	December 31, 2015
Available cash	$ 73,110	$ 63,401
Unpledged investment securities available-for-sale	180,432	161,951
Net borrowing capacity	314,203	299,057
Total liquidity	$ 567,745	$ 524,409

For the three months ended March 31, 2016, we used $5.7 million of cash from operating activities, compared to cash generated of $6.1 million for the same period in 2015. This decrease in cash flow was primarily the result of changes in working capital items largely related to timing of payments of accrued expenses.

Investing activities resulted in a net cash outflow of $75.2 million, for the three months ended March 31, 2016, as compared to a net cash outflow of $59.2 million for the same period in 2015. The outflows for the three months ended March 31, 2016, were primarily due to net loan growth of $56.1 million and purchases of investment securities totaling $22.3 million. The outflows for the three months ended March 31, 2015, included net loan growth of $77.1 million, partially offset by the proceeds, principal repayments and maturities from the sale of investment securities totaling $19.5 million.

Financing activities resulted in a net inflow of $94.6 million for the three months ended March 31, 2016, compared to a net inflow of $62.0 million for the same period in 2015, as a result of the net increase in deposits of $66.4 million and a net increase in FHLB borrowings of $30 million for the three months ended March 31, 2016, compared to $105.0 million net increase in deposits, partially offset by a net decrease in FHLB borrowings of $40.0 million for the three months ended March 31, 2015.

We continue to evaluate the potential impact on liquidity management by regulatory proposals, including those being established under the Dodd-Frank Act, as government regulators continue the final rule-making process.

Capital Resources

The access to and cost of funding for new business initiatives, the ability to engage in expanded business activities, the ability to pay dividends, the level of deposit insurance costs and the level and nature of regulatory oversight depend, in part, on our capital position.

The assessment of capital adequacy depends on a number of factors, including asset quality, liquidity, earnings performance, changing competitive conditions and economic forces. We seek to maintain a strong capital base to

support our growth and expansion activities, to provide stability to current operations and to promote public confidence.

Shareholders’ Equity. Shareholders’ equity increased to $330.2 million as of March 31, 2016, compared to $326.0 million as of December 31, 2015. The $4.3 million increase during the three months ended March 31, 2016, was attributable to net income of $5.8 million, the impact of $795,000 in stock-based compensation and $20,000 in exercises of stock options, partially offset by the purchase of $1.7 million in treasury stock and a decrease of $651,000 in accumulated other comprehensive income (loss).

Regulatory Capital. As of March 31, 2016 and December 31, 2015, TriState Capital Holdings, Inc. and TriState Capital Bank were in compliance with all applicable regulatory capital requirements, and TriState Capital Bank was categorized as well capitalized for purposes of the FDIC’s prompt corrective action regulations. As we employ our capital and continue to grow our operations, our regulatory capital levels may decrease. However, we will monitor our capital in order to remain categorized as well capitalized under the applicable regulatory guidelines and in compliance with all regulatory capital standards applicable to us.

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In December 2010, the Basel Committee released a final framework for a strengthened set of capital requirements, known as Basel III. In July 2013, final rules implementing the Basel III capital accord were adopted by the federal banking agencies. Basel III, which began phasing in on January 1, 2015, has replaced the existing regulatory capital rules for the Company and the Bank. The Basel III final rules required new minimum capital ratio standards, established a new common equity tier 1 to total risk-weighted assets ratio, subjected banking organizations to certain limitations on capital distributions and discretionary bonus payments and established a new standardized approach for risk weightings.

The following tables present the actual capital amounts and regulatory capital ratios for the Company and the Bank as of the dates indicated:

	March 31, 2016					
	Actual		For Capital Adequacy Purposes		To be Well Capitalized Under Prompt Corrective Action Provisions	
(Dollars in thousands)	Amount	Ratio	Amount	Ratio	Amount	Ratio
Total risk-based capital ratio						
Company	$328,511	13.36%	$196,641	8.00%	N/A	N/A
Bank	$317,301	13.04%	$194,737	8.00%	$243,421	10.00%
Tier 1 risk-based capital ratio						
Company	$289,049	11.76%	$147,481	6.00%	N/A	N/A
Bank	$298,234	12.25%	$146,052	6.00%	$194,737	8.00 %
Common equity tier 1 risk-based capital ratio						
Company	$289,049	11.76%	$110,611	4.50%	N/A	N/A
Bank	$298,234	12.25%	$109,539	4.50%	$158,223	6.50 %
Tier 1 leverage ratio						
Company	$289,049	8.83 %	$130,925	4.00%	N/A	N/A
Bank	$298,234	9.18 %	$130,006	4.00%	$162,508	5.00 %

	December 31, 2015					
	Actual		For Capital Adequacy Purposes		To be Well Capitalized Under Prompt Corrective Action Provisions	
(Dollars in thousands)	Amount	Ratio	Amount	Ratio	Amount	Ratio
Total risk-based capital ratio						
Company	$326,378	13.88%	$188,176	8.00%	N/A	N/A
Bank	$310,624	13.35%	$186,077	8.00%	$232,596	10.00%
Tier 1 risk-based capital ratio						
Company	$287,072	12.20%	$141,132	6.00%	N/A	N/A
Bank	$292,234	12.56%	$139,558	6.00%	$186,077	8.00 %
Common equity tier 1 risk-based capital ratio						
Company	$287,072	12.20%	$105,849	4.50%	N/A	N/A
Bank	$292,234	12.56%	$104,668	4.50%	$151,187	6.50 %
Tier 1 leverage ratio						
Company	$287,072	9.05 %	$126,932	4.00%	N/A	N/A
Bank	$292,234	9.29 %	$125,870	4.00%	$157,338	5.00 %

In addition, the final rules subject a banking organization to certain limitations on capital distributions and discretionary bonus payments to executive officers if the organization does not maintain a capital conservation buffer of risk-based capital ratios in an amount greater than 2.5% of its total risk-weighted assets. The implementation of the capital conservation buffer began on January 1, 2016, at 0.625% and will be phased in over a four-year period (increasing by that amount ratably on each subsequent January 1, until it reaches 2.5% on January 1, 2019).

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Contractual Obligations and Commitments

The following table presents significant fixed and determinable contractual obligations of principal, interest and expenses that may require future cash payments as of the date indicated.

	March 31, 2016				
(Dollars in thousands)	One Year or Less	One to Three Years	Three to Five Years	Greater Than Five Years	Total
Deposits without a stated maturity	$1,914,299	$—	$—	$ —	$1,914,299
Time deposits	622,909	218,754	245	—	841,908
Borrowings outstanding	250,000	—	35,000	—	285,000
Interest payments on time deposits and borrowings	6,093	5,201	1,006	—	12,300
Operating leases	1,995	3,945	3,762	838	10,540
The Killen Group acquisition [1]	15,000	5,000	—	—	20,000
Total contractual obligations	$2,810,296	$232,900	$40,013	$ 838	$3,084,047

(1) On December 16, 2015, the Company entered into a definitive asset purchase agreement to acquire The Killen Group, Inc. that closed on April 29, 2016. The transaction value is estimated to be between $15 million and $20 million, which includes an initial purchase price of $15 million and an earnout based on December 31, 2016, annual run-rate EBITDA (earnings before interest, taxes, depreciation and amortization).

Off-Balance Sheet Arrangements

In the normal course of business, we enter into various transactions that are not included in our consolidated balance sheets in accordance with GAAP. These transactions include commitments to extend credit in the ordinary course of business to approved customers.

Loan commitments are recorded on our financial statements as they are funded. Commitments generally have fixed expiration dates or other termination clauses and may require payment of a fee. Loan commitments include unused commitments for open end lines secured by cash and marketable securities and residential properties, commitments to fund loans secured by commercial real estate, construction loans, business lines of credit and other unused commitments of loans in various stages of funding.

Standby letters of credit are written conditional commitments issued by us to guarantee the performance of a customer to a third party. In the event the customer does not perform in accordance with the terms of the agreement with the third party, we would be required to fund the commitment. The maximum potential amount of future payments we could be required to make is represented by the contractual amount of the commitment. If the commitment is funded, we would be entitled to seek recovery from the customer.

We minimize our exposure to loss under loan commitments and standby letters of credit by subjecting them to credit approval and monitoring procedures. The effect on our revenues, expenses, cash flows and liquidity of the unused portions of these commitments cannot be reasonably predicted because, while the borrower has the ability to draw upon these commitments at any time, these commitments often expire without being drawn upon. There is no guarantee that the lines of credit will be used. The following table is a summary of the total notional amount of unused loan commitments and standby letters of credit outstanding as of the date indicated.

	March 31, 2016				
(Dollars in thousands)	One Year or Less	One to Three Years	Three to Five Years	Greater Than Five	Total

				Years	
Unused loan commitments (based on availability)	$972,279	$165,183	$93,095	$28,030	$1,258,587
Standby letters of credit	36,460	29,983	19,257	107	85,807
Total off-balance sheet arrangements	$1,008,739	$195,166	$112,352	$28,137	$1,344,394

Market Risk

Market risk refers to potential losses arising from changes in interest rates, foreign exchange rates, equity prices and commodity prices. Our primary component of market risk is interest rate volatility. Fluctuations in interest rates will ultimately impact the level of both income and expense recorded on most of our assets and liabilities, and the market value of all interest-earning assets and interest-bearing liabilities, other than those that have a short term to maturity. Because of the nature of our operations, we are not subject to foreign exchange or commodity price risk. From time to time we do hold market risk sensitive instruments for trading purposes. The summary information provided in this section should be read in conjunction with our unaudited condensed consolidated financial statements and related notes.

Interest rate risk is comprised of re-pricing risk, basis risk, yield curve risk and option risk. Re-pricing risk arises from differences in the cash flow or re-pricing between asset and liability portfolios. Basis risk arises when asset and liability portfolios are related to different

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market rate indexes, which do not always change by the same amount or at the same time. Yield curve risk arises when asset and liability portfolios are related to different maturities on a given yield curve; when the yield curve changes shape, the risk position is altered. Option risk arises from embedded options within asset and liability products as certain borrowers have the option to prepay their loans when rates fall, while certain depositors can redeem their certificates when rates rise.

Our ALCO actively measures and manages interest rate risk. The ALCO is responsible for the formulation and implementation of strategies to improve balance sheet positioning and earnings, and reviewing our interest rate sensitivity position. This involves devising policy guidelines, risk measures and limits, and managing the amount of interest rate risk and its effect on net interest income and capital.

We utilize an asset/liability model to measure and manage interest rate risk. The specific measurement tools used by management on at least a quarterly basis include net interest income simulation, economic value of equity and gap analysis. All are static measures that do not incorporate assumptions regarding future business. All are also measures of interest rate sensitivity used to help us develop strategies for managing exposure to interest rate risk rather than projecting future earnings.

In our view, all three measures also have specific benefits and shortcomings. Net interest income ("NII") simulation explicitly measures exposure to earnings from changes in market rates of interest but does not provide a long-term view. Economic value of equity ("EVE") helps identify changes in optionality and price over a longer term horizon but its liquidation perspective does not convey the earnings-based measures that are typically the focus of managing and valuing a going concern. Gap analysis compares the difference between the amount of interest-earning assets and interest-bearing liabilities subject to re-pricing over a period of time but only captures a single rate environment. Reviewing these various measures collectively helps management obtain a comprehensive view of our interest risk rate profile.

The following NII simulation and EVE metrics were calculated using rate shocks, which represent immediate rate changes that move all market rates by the same amount instantaneously. The variance percentages represent the change between the NII simulation and EVE calculated under the particular rate scenario versus the NII simulation and EVE calculated assuming market rates as of the dates indicated.

	March 31, 2016			December 31, 2015	
(Dollars in thousands)	Amount Change from Base Case	Percent Change from Base Case	ALCO Guidelines	Amount Change from Base Case	Percent Change from Base Case
Net interest income:					
+300	$13,389	18.31 %	-20.00 %	$14,120	19.25 %
+200	$8,806	12.04 %	-15.00 %	$9,306	12.69 %
+100	$4,176	5.71 %	-10.00 %	$4,454	6.07 %
–100	$1,393	1.91 %	-10.00 %	$140	0.19 %
Economic value of equity:					
+300	$(11,948)	(3.61)%	+/-30.00%	$(11,238)	(3.56)%
+200	$(7,860)	(2.37)%	+/-20.00%	$(9,625)	(3.05)%
+100	$(3,982)	(1.20)%	+/-10.00%	$(3,655)	(1.16)%
–100	$2,024	0.61 %	+/-10.00%	$502	0.16 %

Given the relatively low current interest rate environment, it is our strategy to continue to manage an asset sensitive interest rate risk position in our net interest income measure. Therefore, rising rates are expected to have a positive effect on net interest income versus net interest income if rates remain unchanged. The results of the EVE calculation, while demonstrating liability sensitivity, indicate a relatively low level of interest rate risk.

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The following gap analysis presents the amounts of interest-earning assets and interest-bearing liabilities that are subject to re-pricing within the periods indicated.

	Interest Rate Sensitivity Period March 31, 2016							
(Dollars in thousands)	Less Than 90 Days	91 to 180 Days	181 to 365 Days	One to Three Years	Three to Five Years	Greater Than Five Years	Non-Sensitive	Total Balance
Assets:								
Interest-earning deposits	$105,151	$—	$—	$—	$—	$—	$—	$105,151
Federal funds sold	5,292	—	—	—	—	—	—	5,292
Total investment securities	115,426	5,520	12,952	46,075	34,849	21,350	(2,378)	233,794
Total loans	2,520,857	26,622	57,542	185,982	76,347	8,094	21,159	2,896,603
Other assets	—	—	—	—	—	—	159,031	159,031
Total assets	$2,746,726	$32,142	$70,494	$232,057	$111,196	$29,444	$177,812	$3,399,871
Liabilities:								
Transaction accounts	$1,759,111	$—	$—	$—	$—	$—	$155,188	$1,914,299
Time deposits	196,140	208,667	218,102	218,754	245	—	—	841,908
Borrowings, net	200,000	25,000	25,000	—	35,000	—	(642)	284,358
Other liabilities	—	—	—	—	—	—	29,064	29,064
Total liabilities	2,155,251	233,667	243,102	218,754	35,245	—	183,610	3,069,629
Equity	—	—	—	—	—	—	330,242	330,242
Total liabilities and equity	$2,155,251	$233,667	$243,102	$218,754	$35,245	$—	$513,852	$3,399,871
Interest rate sensitivity gap	$591,475	$(201,525)	$(172,608)	$13,303	$75,951	$29,444	$(336,040)	
Cumulative interest rate sensitivity gap	$591,475	$389,950	$217,342	$230,645	$306,596	$336,040		
Cumulative interest rate sensitive assets to rate sensitive liabilities	127.4%	116.3%	108.3%	108.1%	110.6%	111.6%	110.8%	
Cumulative gap to total assets	17.4%	11.5%	6.4%	6.8%	9.0%	9.9%		

The cumulative twelve-month ratio of interest rate sensitive assets to interest rate sensitive liabilities decreased to 108.3% as of March 31, 2016, from 111.0% as of December 31, 2015.

Various loans across our portfolio have floating-rate index floors. As of March 31, 2016, there were $70.0 million in loans with a maturity greater than one year and an index floor rate greater than the current index rate. Of this amount, $62.7 million have an index floor rate less than 100 basis points above the current index rate. These loans are

allocated to the less than 90 days bucket in our gap analysis since we believe they would behave more like floating-rate loans given a 100 basis point upward shock in interest rates. The remaining $7.3 million have an index floor rate greater than 100 basis points above the current index rate. These loans are allocated to the one to three years bucket in our gap analysis since we believe they would behave more like fixed-rate loans given a 100 basis point upward shock in interest rates.

Additionally, in all of these analyses (NII, EVE and gap), we use what we believe is a conservative treatment of non-maturity, interest-bearing deposits. In our gap analysis, the allocation of non-maturity, interest-bearing deposits is fully reflected in the less than 90 days maturity category. The allocation of non-maturity, noninterest-bearing deposits is fully reflected in the non-sensitive category. In taking this approach, we provide ourselves with no benefit to either NII or EVE from a potential time-lag in the rate increase of our non-maturity, interest-bearing deposits.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Quantitative and qualitative disclosures about market risk are presented under the caption “Market Risk” in Part I, Item 2, “Management’s Discussion and Analysis of Financial Condition and Results of Operations.”

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ITEM 4. CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

The Company’s management, including the Chief Executive Officer and Chief Financial Officer, conducted an evaluation of the effectiveness of the Company’s disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the “Exchange Act”)) as of March 31, 2016. The Company’s disclosure controls and procedures are designed to ensure that information required to be disclosed by the Company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in the U.S. Securities and Exchange Commission’s rules and forms, and that such information is accumulated and communicated to the Company’s management, including the Company’s Chief Executive Officer and Chief Financial Officer, to allow timely decisions regarding required disclosure. Based on this evaluation, the Chief Executive Officer and Chief Financial Officer concluded that the Company’s disclosure controls and procedures were effective as of March 31, 2016.

Changes in Internal Control over Financial Reporting

There were no changes in the Company’s internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) that occurred during the quarter ended March 31, 2016, that have materially affected or are reasonably likely to materially affect the Company’s internal control over financial reporting.

PART II – OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

From time to time the Company is a party to various litigation matters incidental to the conduct of its business. During the three months ended March 31, 2016, the Company was not a party to any legal proceedings that the resolution of which management believes would have a material adverse effect on the Company’s business, future prospects, financial condition, liquidity, results of operation, cash flows or capital levels.

ITEM 1A. RISK FACTORS

There are risks, many beyond our control, that could cause our results to differ significantly from management’s expectations. Any of the risks described in our Annual Report on Form 10-K for the period ended December 31, 2015, or in this Quarterly Report on Form 10-Q could, by itself or together with one or more other factors, adversely affect our business, results of operations or financial condition. Additional risks and uncertainties not currently known to us or that we currently deem to be immaterial also may materially adversely affect our business, results of operations or financial condition.

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

Recent Sales of Unregistered Securities

None.

Purchases of Equity Securities by the Issuer and Affiliated Purchasers

The table below sets forth information regarding the Company’s purchases of its common stock during its fiscal quarter ended March 31, 2016:

	Total Number of Shares Purchased	Weighted Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs*	Maximum Number of Shares that May Yet Be Purchased Under the Plans or Programs*
January 1, 2016 - January 31, 2016	—	$ —	—	
February 1, 2016 - February 29, 2016	122,306	11.53	122,306	
March 1, 2016 - March 31, 2016	25,900	12.82	25,900	
Total	148,206	$ 11.76	148,206	851,794

* In January 2016, the Company announced that its Board of Directors had approved a share repurchase program of up to $10 million, authorizing TriState Capital Holdings, Inc. to repurchase up to 1,000,000 shares of its common stock from time to time on the open market or in privately negotiated transactions.

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ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

ITEM 5. OTHER INFORMATION

None.

ITEM 6. EXHIBITS

Exhibit No.	Description
31.1	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002, filed herewith.
31.2	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002, filed herewith.
32	Certification of Chief Executive Officer and Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, filed herewith.
101	The following materials from TriState Capital Holdings, Inc.'s Quarterly Report on Form 10-Q for the period ended March 31, 2016, formatted in XBRL: (i) the Unaudited Condensed Consolidated Statements of Financial Condition, (ii) the Unaudited Condensed Consolidated Statements of Income, (iii) the Unaudited Condensed Consolidated Statements of Comprehensive Income, (iv) the Unaudited Condensed Consolidated Statements of Changes in Shareholders' Equity, (v) the Unaudited Condensed Consolidated Statements of Cash Flows and (vi) the Notes to Unaudited Condensed Consolidated Financial Statements.*

* This information is deemed furnished, not filed.

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SIGNATURES

Pursuant to the requirements 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.

TRISTATE CAPITAL HOLDINGS, INC.

By /s/ James F. Getz
James F. Getz
Chairman, President and Chief Executive Officer

By /s/ Mark L. Sullivan
Mark L. Sullivan
Vice Chairman and Chief Financial Officer

Date: May 2, 2016

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