



TEXAS INSTRUMENTS

2019 Annual Report

Notice of 2020 Annual Meeting
and Proxy Statement

To our shareholders, colleagues, customers and partners:

Our long-standing passion and ambitions

For decades, Texas Instruments has operated with a passion to create a better world by making electronics more affordable through semiconductors. We were pioneers in the transition of the world from vacuum tubes to transistors and then to integrated circuits. As each generation became more reliable, more affordable and lower in power, semiconductors were used by a growing number of customers and markets. This passion is alive today as we help our customers develop electronics and new applications, particularly in industrial and automotive markets. It's why we do what we do.

Our founders had the foresight to know that passion alone was not enough. Building a great company required a special culture to thrive for the long term. For many years, we've run our business with three overarching ambitions in mind. First, we will act like owners who will own the company for decades. Second, we will adapt and succeed in a world that's ever changing. And third, we will be a company that we're personally proud to be a part of and would want as our neighbor. When we're successful in achieving these ambitions, our employees, customers, communities and shareholders all win.

Building a stronger TI

For almost a decade, we've had a clear plan for building the company stronger by focusing on analog and embedded products and the industrial and automotive markets, because they're the best products and the best markets for semiconductors. We've focused our investments in these strategic areas and in strengthening our competitive advantages: manufacturing and technology; portfolio breadth; market reach; and diverse and long-lived products, markets and customer positions. Together, these competitive advantages separate us from our peers and are difficult to replicate.

2019 performance

Our performance in 2019 showed what our business model can deliver, despite headwinds from trade tensions and an industry downturn. After investing in our people, products and capacity for the future, we again returned more than 100% of free cash flow to our shareholders in the form of dividends and stock repurchases. With free cash flow of \$5.8 billion, or 40% of revenue, we returned \$6.0 billion. Our quarterly dividend increased 17%, marking the 16th year of dividend increases. In addition, our balance sheet remained strong. We will continue to be disciplined in executing our capital management strategy: investing in and strengthening our competitive advantages, growing free cash flow per share over the long term and returning free cash flow to the owners of the company.

Looking ahead

We remain committed to pursuing our passion to create a better world by making electronics more affordable through semiconductors. You can count on us to do this by staying true to our ambitions to think like owners for the long term, adapt in a world that's ever changing and behave in a way that makes our stakeholders proud. When we're successful, our employees, customers, communities and shareholders all win.



Rich Templeton
Chairman, president and CEO

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**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, D.C. 20549

FORM 10-K

- ☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the fiscal year ended December 31, 2019
- ☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the transition period from _____ to _____
Commission File Number 001-03761

TEXAS INSTRUMENTS INCORPORATED
(Exact Name of Registrant as Specified in Its Charter)

Delaware
(State of Incorporation)

12500 TI Boulevard, Dallas, Texas
(Address of principal executive offices)

75-0289970
(I.R.S. Employer Identification No.)

75243
(Zip Code)

Registrant's telephone number, including area code 214-479-3773

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value \$1.00	TXN	The Nasdaq Global Select Market

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

Indicate by check mark if the Registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes ☒ No ☐

Indicate by check mark if the Registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act.

Yes ☐ No ☒

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

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

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

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

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

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

The aggregate market value of voting stock held by non-affiliates of the Registrant was approximately \$107,187,939,993 as of June 30, 2019.

933,975,619 (Number of shares of common stock outstanding as of February 14, 2020)

Part III hereof incorporates information by reference to the Registrant's proxy statement for the 2020 annual meeting of stockholders.

PART I

ITEM 1. Business

We design and make semiconductors that we sell to electronics designers and manufacturers all over the world. Our operations began in 1930, and we are incorporated in Delaware. With headquarters in Dallas, Texas, we have design, manufacturing or sales operations in more than 30 countries. Our two reportable segments are Analog and Embedded Processing, and we report the results of our remaining business activities in Other. In 2019, we generated \$14.38 billion of revenue.

For many years, we have run our business with three overarching ambitions in mind. First, we will act like owners who will own the company for decades. Second, we will adapt and succeed in a world that is ever changing. And third, we will be a company that we are personally proud to be a part of and that we would want as our neighbor. When we are successful in achieving these ambitions, our employees, customers, communities and shareholders all win.

Our business model is designed around four sustainable competitive advantages that we believe, in combination, put us in a unique class of companies. These advantages include (i) a strong foundation of manufacturing and technology, (ii) a broad portfolio of differentiated analog and embedded processing products, (iii) reach of market channels including our sales force and TI.com and (iv) diversity and longevity of our products, markets and customer positions. Our strategic focus, and where we invest the majority of our resources, is on Analog and Embedded Processing, with a particular emphasis on designing and selling those products into the industrial and automotive markets. We believe these markets represent the best growth opportunities over the next decade or longer, due to increasing semiconductor content. Additionally, analog and embedded processing products sold into industrial and automotive markets provide long product life cycles, intrinsic diversity and less capital-intensive manufacturing, which we believe offer stability, profitability and strong cash generation.

This business model is the foundation of our capital management strategy, which is based on our belief that free cash flow growth, especially on a per-share basis, is important for maximizing shareholder value over the long term. We also believe that free cash flow (cash flow from operations less capital expenditures) will be valued only if it is productively invested in the business or returned to shareholders. TI's business model puts us in a unique class of companies with the ability to grow, generate cash and return that cash to shareholders.

The combined effect of our ambitions, business model and sustainable competitive advantages is that we have continued to build a stronger company. Over time, we have gained market share in Analog and Embedded Processing and grown and returned all free cash flow to our owners.

Product information

Semiconductors are electronic components that serve as the building blocks inside modern electronic systems and equipment. Semiconductors, generally known as “chips,” combine multiple transistors to form a complete electronic circuit. We have tens of thousands of products that are used to accomplish many different things, such as converting and amplifying signals, interfacing with other devices, managing and distributing power, processing data, canceling noise and improving signal resolution. This broad portfolio includes products that are integral to almost all electronic equipment.

Our segments represent groups of similar products that are combined on the basis of similar design and development requirements, product characteristics, manufacturing processes and distribution channels. Our segments also reflect how management allocates resources and measures results.

Analog

Our Analog segment generated \$10.22 billion of revenue in 2019. Analog semiconductors change real-world signals, such as sound, temperature, pressure or images, by conditioning them, amplifying them and often converting them to a stream of digital data that can be processed by other semiconductors, such as embedded processors. Analog semiconductors are also used to manage power in all electronic equipment by converting, distributing, storing, discharging, isolating and measuring electrical energy, whether the equipment is plugged into a wall or using a battery. Our Analog products are used in many markets, particularly industrial, automotive and personal electronics.

Sales of our Analog products generated about 71% of our revenue in 2019. According to external sources, the market for analog semiconductors was about \$54 billion in 2019. Our Analog segment's revenue in 2019 was about 19% of this fragmented market, which is the leading position. We believe we are well positioned to increase our market share over time.

Our Analog segment includes the following major product lines: Power, Signal Chain and High Volume.

Power

Power includes products that help customers manage power in electronic systems. Our broad portfolio is designed to manage power requirements across different voltage levels using battery management solutions, portable components, power supply controls, point-of-load products, switches and interfaces, integrated protection devices, high-voltage products and mobile lighting and display products.

Signal Chain

Signal Chain includes products that sense, condition and measure real-world signals to allow information to be transferred or converted for further processing and control. Our Signal Chain products, which serve a variety of end markets, include amplifiers, data converters, interface products, motor drives, clocks and sensing products.

High Volume

High Volume includes integrated analog and standard products that are primarily sold into markets such as personal electronics, industrial and automotive. These products support applications like displays and automotive safety systems.

Embedded Processing

Our Embedded Processing segment generated \$2.94 billion of revenue in 2019. Embedded Processing products are the “brains” of many types of electronic equipment. Embedded processors are designed to handle specific tasks and can be optimized for various combinations of performance, power and cost, depending on the application. Our devices vary from simple, low-cost microcontrollers used in applications such as electric toothbrushes to highly specialized, complex devices used in automotive applications such as infotainment systems and advanced driver assistance systems (ADAS). Our Embedded Processing products are used in many markets, particularly industrial and automotive.

An important characteristic of our Embedded Processing products is that our customers often invest their own research and development (R&D) to write software that operates on our products. This investment tends to increase the length of our customer relationships because many customers prefer to re-use software from one product generation to the next.

Sales of Embedded Processing products generated about 20% of our revenue in 2019. According to external sources, the market for embedded processors was about \$18 billion in 2019. Our Embedded Processing segment's revenue in 2019 was about 16% of this fragmented market, which is among the leaders. We believe we are well positioned to increase our market share over time.

Our Embedded Processing segment includes the following major product lines: Connected Microcontrollers and Processors.

Connected Microcontrollers

Connected Microcontrollers includes microcontrollers, microcontrollers with integrated wireless capabilities and stand-alone wireless connectivity solutions. Microcontrollers are self-contained systems with a processor core, memory and peripherals that are designed to control a set of specific tasks for electronic equipment.

Processors

Processors includes digital signal processors (DSPs) and applications processors. DSPs perform mathematical computations almost instantaneously to process or improve digital data. Applications processors are designed for specific computing activity.

Other

We report the results of our remaining business activities in Other, which includes operating segments that do not meet the quantitative thresholds for individually reportable segments and cannot be aggregated with other operating segments. Other generated \$1.22 billion of revenue in 2019 and includes revenue from DLP® products (primarily used in projectors to create high-definition images), calculators and certain custom semiconductors known as application-specific integrated circuits (ASICs).

In Other, we also include items that are not used in evaluating the results of or in allocating resources to our segments. Examples of these items include acquisition charges, restructuring charges, and certain corporate-level items, such as litigation expenses, environmental costs, insurance settlements and gains and losses from other activities, including asset dispositions.

Markets for our products

The table below lists the major markets for our products in 2019 and the estimated percentage of our 2019 revenue that the market represented. The chart also lists, in declining order of our revenue, the sectors within each market.

Market	Sector
Industrial (36% of TI revenue)	Factory automation & control Building automation Grid infrastructure Medical Aerospace & defense Test & measurement Appliances Pro audio, video & signage Motor drives Power delivery Retail automation & payments Industrial transport Lighting
Automotive (21% of TI revenue)	Infotainment & cluster Advanced driver assistance systems (ADAS) Passive safety Hybrid, electric & powertrain systems Body electronics & lighting
Personal electronics (23% of TI revenue)	Mobile phones Portable electronics PC & notebooks Connected peripherals & printers Home theatre & entertainment TV Tablets Wearables (non-medical) Data storage Gaming
Communications equipment (11% of TI revenue)	Wireless infrastructure Wired networking Broadband fixed line access Datacom module
Enterprise systems (6% of TI revenue)	Data center & enterprise computing Enterprise projectors Enterprise machine
Other (calculators and other) (3% of TI revenue)	

Market characteristics

Competitive landscape

Despite recent consolidation, the analog and embedded processing markets remain highly fragmented. As a result, we face significant global competition from dozens of large and small companies, including both broad-based suppliers and niche suppliers. Our competitors also include emerging companies, particularly in Asia, that sell products into the same markets in which we operate.

We believe that competitive performance in the semiconductor market generally depends on several factors, including the breadth of a company's product line, the strength and depth of its channels to market, technological innovation, product development execution, technical support, customer service, quality, reliability, manufacturing capacity and capabilities and price. In addition, manufacturing process and package technologies that provide differentiated levels of performance and a structural cost advantage are competitive factors for our Analog products, and customers' prior investments in software development is a competitive factor for our Embedded Processing products.

Product cycle

The global semiconductor market is characterized by constant, though generally incremental, advances in product designs and manufacturing processes. Semiconductor prices and manufacturing costs tend to decline over time as manufacturing processes and product life cycles mature.

Market cycle

The "semiconductor cycle" refers to the ebb and flow of supply and demand and the building and depleting of inventories. The semiconductor market historically has been characterized by periods of tight supply caused by strengthening demand and/or insufficient manufacturing capacity, followed by periods of surplus inventory caused by weakening demand and/or excess manufacturing capacity. These are typically referred to as upturns and downturns in the semiconductor cycle. The semiconductor cycle could be affected by the significant time and money required to build and maintain semiconductor manufacturing facilities.

We employ several strategies to dampen the effect of the semiconductor cycle on TI. We focus our resources on analog and embedded processing products and industrial and automotive markets. These products and markets serve a large and diverse customer base, which reduces our dependence on the performance of a single market or small group of customers. Industrial and automotive markets also benefit from long product life cycles, which help to smooth the impact of cyclicalities. In addition, we plan manufacturing facility and equipment expansion ahead of demand, as well as utilize consignment inventory programs to give us improved insight into customer demand and more accurately manage factory loadings.

Seasonality

Our revenue is subject to some seasonal variation. Historically, our sequential revenue growth rate tends to be weaker in the first and fourth quarters when compared with the second and third quarters.

Customers, sales and distribution

We sell our products to about 100,000 customers. Our customer base is diverse, with more than one-third of our revenue derived from customers outside our largest 100.

We market and sell our products through direct sales channels, including our broad sales force and our website, and through distributors. In 2019, about 65% of our sales were fulfilled through our distributors, and they maintain inventory of our products.

Over the past several years, we have been investing in new capabilities and evolving our distribution network to better align with our strategy to establish closer, more direct relationships with our customers. Closer direct customer relationships give us better insight into customer needs and allow us to provide better service and greater assurance of supply, among other benefits. As we expand these direct customer relationships over the next several years, we will have less business flowing through the distribution channel and therefore will require fewer distributors.

Our investments in new and improved capabilities to directly support our customers include website and e-commerce enhancements as well as inventory consignment programs and order fulfillment services.

Manufacturing

Semiconductor manufacturing begins with a sequence of photolithographic and chemical processing steps that fabricate a number of semiconductor devices on a thin silicon wafer. Each device on the wafer is packaged and tested. The entire process takes place in highly specialized facilities, with most products requiring about two to three months for completion.

We own and operate semiconductor manufacturing facilities in North America, Asia, Japan and Europe. These include both wafer fabrication and assembly/test facilities. Our facilities require substantial investment to construct and are largely fixed-cost assets once in operation.

We invest in manufacturing technologies and do most of our manufacturing in-house. This strategic decision to directly control our manufacturing helps ensure a consistent supply of products for our customers and also allows us to invest in technology that differentiates the features of our products. We have focused on creating a competitive manufacturing cost advantage by investing in our advanced analog 300-millimeter capacity, which has about a 40% cost advantage per unpackaged chip over 200-millimeter. To strengthen this advantage, we are moving forward with our plan to build our new 300-millimeter wafer fabrication facility in Richardson, Texas, as 300-millimeter wafers will continue to support the majority of our Analog growth.

We expect to continue to maintain sufficient internal manufacturing capacity to meet the majority of our production needs and to obtain manufacturing equipment to support new technology developments and revenue growth. To supplement our manufacturing capacity and maximize our responsiveness to customer demand, we use the capacity of outside suppliers, commonly known as foundries, and subcontractors. In 2019, we sourced about 20% of our total wafers from external foundries, most of which support our Embedded Processing segment, and about 40% of our assembly/test services from subcontractors.

Inventory

Our objectives for inventory are to maintain high levels of customer service and stable lead times, minimize inventory obsolescence and improve manufacturing asset utilization. To meet these objectives and to allow greater flexibility in periods of high demand, we build ahead of demand long-lived, low-volume products and maintain inventory of other products that have a broad customer base and low risk of obsolescence. Further, we have improved insight into demand and are better able to manage our factory loadings because over time we have increased consignment inventory programs and are building closer, more direct relationships with our customers. In 2019, about 65% of TI revenue was fulfilled from consignment programs. Our strategy and expected customer demand will cause our inventory levels to fluctuate over time.

Backlog

We define backlog as of a particular date as purchase orders with a customer-requested delivery date within a specified length of time. Our backlog at any particular date may not be indicative of revenue for any future period. As customer requirements and industry conditions change, orders may be subject to cancellation or modification of terms such as pricing, quantity or delivery date. Customer order placement practices continually evolve based on customers' individual business needs and capabilities, as well as industry supply and capacity considerations. Further, our consignment programs do not result in backlog because the order occurs at the same time as delivery, i.e., when the customer pulls the product from consigned inventory. Our backlog of orders was \$1.0 billion at December 31, 2019, and \$1.5 billion at December 31, 2018.

Raw materials

We purchase materials, parts and supplies from a number of suppliers. In some cases we purchase such items from sole-source suppliers. The materials, parts and supplies essential to our business are generally available at present, and we believe that such materials, parts and supplies will be available in the foreseeable future.

Intellectual property

We own many patents, and have many patent applications pending, in the United States and other countries in fields relating to our business. We have developed a strong, broad-based patent portfolio and continually add patents to that portfolio. We also have license agreements, which vary in duration, involving rights to our portfolio or those of other companies. We do not consider our business materially dependent upon any one patent or patent license.

We often participate in industry initiatives to set technical standards. Our competitors may participate in the same initiatives. Participation in these initiatives may require us to license certain of our patents to other companies on reasonable and non-discriminatory terms.

We own trademarks that are used in the conduct of our business. These trademarks are valuable assets, the most important of which are "Texas Instruments" and our corporate monogram.

Executive officers of the Registrant

The following is an alphabetical list of the names and ages of the executive officers of the company and the positions or offices with the company held by each person named:

Name	Age	Position
Niels Anderskouv	50	Senior Vice President
Ahmad S. Bahai	57	Senior Vice President
Ellen L. Barker	57	Senior Vice President and Chief Information Officer
Kyle M. Flessner	49	Senior Vice President
Haviv Ilan	51	Senior Vice President
Hagop H. Kozanian	37	Senior Vice President
Rafael R. Lizardi	47	Senior Vice President, Chief Financial Officer and Chief Accounting Officer
Amichai Ron	42	Senior Vice President
Richard K. Templeton	61	Director, Chairman of the Board, President and Chief Executive Officer
Cynthia Hoff Trochu	56	Senior Vice President, Secretary and General Counsel
Julie M. Van Haren	51	Senior Vice President
Darla H. Whitaker	54	Senior Vice President
Bing Xie	52	Senior Vice President

The term of office of these officers is from the date of their election until their successor shall have been elected and qualified. All have been employees of the company for more than five years. Messrs. Templeton and Xie and Ms. Whitaker have served as executive officers of the company for more than five years. Ms. Trochu became an executive officer of the company in 2015. Messrs. Anderskouv, Ilan and Lizardi and Ms. Barker and Van Haren became executive officers of the company in 2017. Messrs. Bahai, Flessner and Kozanian became executive officers of the company in 2018. Mr. Ron became an executive officer in 2019. Mr. Anderskouv was previously an executive officer of the company from 2012 to 2014.

Employees

At December 31, 2019, we had 29,768 employees.

Available information

Our internet address is www.ti.com. Information on our website is not part of this report. We make available free of charge through our Investor Relations website our reports on Forms 10-K, 10-Q and 8-K, and amendments to those reports, as soon as reasonably practicable after they are filed with the SEC. Also available through the TI Investor Relations website are reports filed by our directors and executive officers on Forms 3, 4 and 5, and amendments to those reports.

Available on our website at www.ti.com/corporategovernance: (i) our Corporate Governance Guidelines; (ii) charters for the Audit, Compensation, and Governance and Stockholder Relations Committees of our board of directors; (iii) our Code of Conduct; and (iv) our Code of Ethics for TI Chief Executive Officer and Senior Finance Officers. Stockholders may request copies of these documents free of charge by writing to Texas Instruments Incorporated, P.O. Box 660199, MS 8657, Dallas, Texas, 75266-0199, Attention: Investor Relations.

ITEM 1A. Risk factors

You should read the following risk factors in conjunction with the factors discussed elsewhere in this and other of our filings with the Securities and Exchange Commission (SEC) and in materials incorporated by reference into these filings. These risk factors are intended to highlight certain factors that may affect our financial condition and results of operations and are not meant to be an exhaustive discussion of risks that apply to TI, a company with broad international operations. Like many companies, we are susceptible to a potential downturn associated with macroeconomic weakness, which may affect our performance and the performance of our customers. Similarly, the price of our securities is subject to volatility due to fluctuations in general market conditions, actual financial results that do not meet our and/or the investment community's expectations, changes in our and/or the investment community's expectations for our future results, dividends or share repurchases, and other factors, many of which are beyond our control.

Our global operations subject us to risks associated with domestic or international political, social, economic or other conditions.

We have facilities in more than 30 countries. About 85% of our revenue comes from shipments to locations outside the United States; shipments of products into China represent a large portion of our revenue. Certain countries where we operate have experienced, and other countries may experience, increasing protectionism that affects global trade and macroeconomic conditions through the enactment of tariffs, import or export restrictions, trade embargoes and sanctions, restrictions on cross-border investment and other trade barriers. This protectionism impacts our ability to deliver products and product support into China, could cause Chinese customers to seek alternate suppliers and could otherwise adversely affect our operations and financial results.

We are exposed to political, social and economic conditions, security risks, terrorism or other hostile acts, health conditions, labor conditions, and possible disruptions in transportation, communications and information technology networks of the various countries in which we operate. In addition, our global operations expose us to periods when the U.S. dollar significantly fluctuates in relation to the non-U.S. currencies in which we transact business. The remeasurement of non-U.S. dollar transactions can have an adverse effect on our results of operations and financial condition.

We face substantial competition that requires us to respond rapidly to product development and pricing pressures.

We face intense technological and pricing competition in the markets in which we operate. We expect this competition will continue to increase from large competitors and from small competitors serving niche markets, and also from emerging companies, particularly in Asia, that sell products into the same markets in which we operate. For example, we may face increased competition as a result of China actively promoting and reshaping its domestic semiconductor industry through policy changes and investment. These actions, in conjunction with trade tensions, may restrict us from participating in the China market or may prevent us from competing effectively. Certain competitors possess sufficient financial, technical and management resources to develop and market products that may compete favorably against our products, and consolidation among our competitors may allow them to compete more effectively. The price and product development pressures that result from competition may lead to reduced profit margins and lost business opportunities in the event that we are unable to match the price declines or cost efficiencies, or meet the technological, product, support, software or manufacturing advancements of our competitors.

Changes in expected demand for our products could have a material adverse effect on our results of operations.

Our customers include companies in a wide range of end markets and sectors within those markets. If demand in one or more sectors within our end markets declines or the rate of growth slows, our results of operations may be adversely affected. The cyclical nature of the semiconductor market occasionally leads to significant and rapid increases and decreases in product demand. Additionally, the loss or significant curtailment of purchases by one or more of our large customers, including curtailments due to a change in the design or manufacturing sourcing policies or practices of these customers, the timing of customer or distributor inventory adjustments, or trade restrictions, may adversely affect our results of operations and financial condition.

Our results of operations also might suffer because of a general decline in customer demand resulting from, for example: uncertainty regarding the stability of global credit and financial markets; natural events or domestic or international political, social, economic or other conditions; breaches of customer information technology systems that disrupt customer operations; or a customer's inability to access credit markets and other sources of needed liquidity.

Our ability to match inventory and production with the product mix needed to fill orders may affect our ability to meet a quarter's revenue forecast. In addition, when responding to customers' requests for shorter shipment lead times, we manufacture products based on forecasts of customers' demands. These forecasts are based on multiple assumptions. If we inaccurately forecast customer demand, we may hold inadequate, excess or obsolete inventory that would reduce our profit margins and adversely affect our results of operations and financial condition.

Our operating results and our reputation could be adversely affected by breaches, disruptions or other incidents relating to our information technology systems.

Breaches, disruptions or other incidents relating to our information technology systems or the systems of our customers, vendors and other third parties could be caused by factors such as computer viruses, system failures, restricted network access, unauthorized access, terrorism, employee malfeasance, or human error. These events could, among other things, compromise our information technology networks; result in corrupt or lost data or the unauthorized release of our, our customers' or our suppliers' confidential or proprietary information; cause a disruption to our manufacturing and other operations; result in the release of personal data; or cause us to incur costs associated with increased protection, remediation, regulatory inquiries or penalties, or claims for damages, any of which could adversely affect our operating results and our reputation. Cybersecurity or other threats to our information technology systems or the systems of our customers, vendors and other third parties are frequent and constantly evolving, thereby increasing the difficulty of defending against them.

Our ability to successfully implement strategic, business and organizational changes could affect our business plans and results of operations.

From time to time, we undertake strategic, business and organizational changes, including acquisitions, divestitures and restructuring actions, to support or carry out our objectives. Our failure to successfully implement these changes could adversely affect our business plans and operating results. We may not achieve or sustain the expected growth, cost savings or other benefits of strategic, business and organizational changes, and restructuring charges could differ materially in amount and timing from our expectations.

Our results of operations could be affected by natural events in the locations in which we operate.

We have manufacturing, data and design facilities and other operations in locations subject to natural occurrences such as severe weather, geological events or health epidemics that could disrupt operations. A natural disaster that results in a prolonged disruption, particularly where we have principal manufacturing and design operations, as listed in Item 2. Properties, may adversely affect our results and financial condition.

Rapid technological change in markets we serve requires us to develop new technologies and products.

Rapid technological change in markets we serve could contribute to shortened product life cycles and a decline in average selling prices of our products. Our results of operations depend in part upon our ability to successfully develop, manufacture and market innovative products in a timely manner. We make significant investments in research and development to improve existing technology and products, develop new products to meet changing customer demands, and improve our production processes. In some cases, we might not realize a return or the expected return on our investments because they are generally made before commercial viability can be assured. Further, projects that are commercially viable may not contribute to our operating results until at least a few years after they are completed.

We face supply chain and manufacturing risks.

We rely on third parties to supply us with goods and services in a cost-effective and timely manner. Our access to needed goods and services may be adversely affected by potential disputes with suppliers or disruptions in our suppliers' operations as a result of, for example: quality excursions; uncertainty regarding the stability of global credit and financial markets; domestic or international political, social, economic and other conditions; natural events or health epidemics in the locations in which our suppliers operate; or limited or delayed access to key raw materials, natural resources and utilities. Additionally, a breach or other incident relating to our suppliers' information technology systems could result in a release of confidential or proprietary information. If our suppliers are unable to access credit markets and other sources of needed liquidity, we may be unable to obtain needed supplies, collect accounts receivable or access needed technology.

In particular, our manufacturing processes and critical manufacturing equipment require that certain key raw materials, natural resources and utilities be available. Limited or delayed access to and high costs of these items could adversely affect our results of operations. Our products contain materials that are subject to conflict minerals reporting requirements. Our relationships with customers and suppliers may be adversely affected if we are unable to describe our products as conflict-free. Additionally, our costs may increase if one or more of our customers demand that we change the sourcing of materials we cannot identify as conflict-free.

Our inability to timely implement new manufacturing technologies or install manufacturing equipment could adversely affect our results of operations. We subcontract a portion of our wafer fabrication and assembly and testing of our products, and we depend on third parties to provide advanced logic manufacturing process technology development. We do not have long-term contracts with all of these suppliers, and the number of alternate suppliers is limited. Reliance on these suppliers involves risks, including possible shortages of capacity in periods of high demand, suppliers' inability to develop and deliver advanced logic manufacturing process technology in a timely, cost effective, and appropriate manner, the possibility of suppliers' imposition of increased costs on us and the unauthorized disclosure or use of our intellectual property.

Our results of operations and our reputation could be affected by warranty claims, product liability claims, product recalls or legal proceedings.

Claims based on warranty, product liability, epidemic or delivery failures, or other grounds relating to our products, manufacturing, services, designs, communications or cybersecurity could lead to significant expenses as we defend the claims or pay damage awards or settlements. In the event of a claim, we would also incur costs if we decide to compensate the affected customer or end consumer. Any such claims may also cause us to write off the value of related inventory. We maintain product liability insurance, but there is no guarantee that such insurance will be available or adequate to protect against all such claims. In addition, it is possible for a customer to recall a product containing a TI part, for example, with respect to products used in automotive applications or handheld electronics, which may cause us to incur costs and expenses relating to the recall. Any of these events could adversely affect our results of operations, financial condition and reputation.

Our operations could be affected by the complex laws, rules and regulations to which our business is subject.

We are subject to complex laws, rules and regulations affecting our domestic and international operations relating to, for example, the environment, safety and health; trade; bribery and corruption; financial reporting; tax; data privacy and protection; labor and employment; competition; market access; intellectual property ownership and infringement; and the movement of currency. Compliance with these laws, rules and regulations may be onerous and expensive and could restrict our ability to manufacture or ship our products and operate our business. If we fail to comply or if we become subject to enforcement activity, we could be subject to fines, penalties or other legal liability. Furthermore, should these laws, rules and regulations be amended or expanded, or new ones enacted, we could incur materially greater compliance costs or restrictions on our ability to manufacture our products and operate our business.

Some of these complex laws, rules and regulations – for example, those related to environmental, safety and health requirements – may particularly affect us in the jurisdictions in which we manufacture products, especially if such laws and regulations: require the use of abatement equipment beyond what we currently employ; require the addition or elimination of a raw material or process to or from our current manufacturing processes; or impose costs, fees or reporting requirements on the direct or indirect use of energy, natural resources, or materials or gases used or emitted into the environment in connection with the manufacture of our products. A substitute for a prohibited raw material or process might not be available, or might not be available at reasonable cost.

Our results of operations could be affected by changes in tax-related matters.

We have facilities in more than 30 countries and as a result are subject to taxation and audit by a number of taxing authorities. Tax rates vary among the jurisdictions in which we operate. If our tax rate increases, our results of operations could be adversely affected. A number of factors could cause our tax rate to increase, including a change in the jurisdictions in which our profits are earned and taxed; a change in the mix of profits from those jurisdictions; changes in available tax credits or deductions, including for amounts relating to stock compensation; changes in applicable tax rates; changes in tariff regulations or surcharges; changes in accounting principles; or adverse resolution of audits by taxing authorities. We have deferred tax assets on our balance sheet. Changes in applicable tax laws and regulations or in our business performance could affect our ability to realize those deferred tax assets, which could also affect our results of operations.

In addition, we are subject to laws and regulations in various jurisdictions that determine how much profit has been earned and when it is subject to taxation in that jurisdiction. These laws and regulations can be complex and subject to interpretation. Changes in these laws and regulations, including those that align with the Organisation for Economic Cooperation and Development's Base Erosion and Profit Shifting recommendations, could affect the locations where we are deemed to earn income, which could in turn affect our results of operations. Each quarter we forecast our tax expense based on our forecast of our performance for the year. If that performance forecast changes, our forecasted tax expense will change.

Our results of operations and financial condition could be adversely affected if a customer or a distributor suffers a loss with respect to our inventory.

We have consignment inventory programs in place for some of our largest customers and distributors. If a customer or distributor were to experience a loss with respect to TI-consigned inventory, our results of operations and financial condition would be adversely affected if we do not recover the full value of the lost inventory from the customer, distributor or insurer, or if our recovery is delayed.

Our results of operations could be adversely affected by our distributors' promotion of competing product lines or our distributors' financial performance.

In 2019, about 65% of our revenue was generated from sales of our products through distributors. Our distributors carry competing product lines, and our sales could be affected if our distributors promote competing products over our products. Moreover, our results of operations could be affected if our distributors suffer financial difficulties that result in their inability to pay amounts owed to us. Disputes with significant distributors could be disruptive or harmful to our business.

Our margins vary.

Our profit margins vary due to a number of factors, which may include customer demand and shipment volume; our manufacturing processes; product mix; inventory levels; tariffs; and new accounting pronouncements or changes in existing accounting practices or standards. In addition, we operate in a highly competitive market environment that might adversely affect pricing for our products. Because we own much of our manufacturing capacity, a significant portion of our operating costs is fixed. In general, these fixed costs do not decline with reductions in customer demand or factory loadings, and can adversely affect profit margins as a result.

Our performance depends in part on our ability to enforce our intellectual property rights and to maintain freedom of operation.

Access to worldwide markets depends in part on the continued strength of our intellectual property portfolio in all jurisdictions where we conduct business. There can be no assurance that, as our business evolves, we will obtain the necessary intellectual property rights, or that we will be able to independently develop the technology, software or know-how necessary to conduct our business or that we can do so without infringing the intellectual property rights of others. To the extent that we have to rely on licensed technology from others, there can be no assurance that we will be able to obtain licenses at all or on terms we consider reasonable. We, directly or indirectly, face infringement claims from third parties, including non-practicing entities that have acquired patents to pursue enforcement actions against other companies. We also face infringement claims where we or our customers make, use or sell products and where the intellectual property laws may be less established or less predictable. These assertions, whether or not of any merit, expose us to claims for damages and/or injunctions from third parties, as well as claims for indemnification by our customers in instances where we have a contractual or other legal obligation to indemnify them against damages resulting from infringement claims.

We actively enforce and protect our own intellectual property rights. However, our efforts cannot prevent all misappropriation or improper use of our protected technology and information, including, for example, third parties' use of our patented or copyrighted technology, or our trade secrets in their products without the right to do so, or third parties' sale of counterfeit products bearing our trademark. The risk of unfair copying or cloning may impede our ability to sell our products. The laws of countries where we operate may not protect our intellectual property rights to the same extent as U.S. laws.

Our debt could affect our operations and financial condition.

From time to time, we issue debt securities with various interest rates and maturities. While we believe we will have the ability to service this debt, our ability to make principal and interest payments when due depends upon our future performance, which will be subject to general economic conditions, industry cycles, and business and other factors affecting our operations, including our other risk factors, many of which are beyond our control. In addition, our obligation to make principal and interest payments could divert funds that otherwise would be invested in our operations or returned to shareholders, or could cause us to raise funds by, for example, issuing new debt or equity or selling assets.

Our results of operations and liquidity could be affected by changes in the financial markets.

We maintain bank accounts, one or more multiyear revolving credit agreements, and a portfolio of investments to support the financing needs of the company. Our ability to fund our operations, invest in our business, make strategic acquisitions, service our debt obligations and meet our cash return objectives depends upon continuous access to our bank and investment accounts, and may depend on access to our bank credit lines that support commercial paper borrowings and provide additional liquidity through short-term bank loans. If we are unable to access these accounts and credit lines (for example, due to instability in the financial markets), our results of operations and financial condition could be adversely affected and our ability to access the capital markets or redeem our investments could be restricted.

Increases in health care and pension benefit costs could affect our results of operations and financial condition.

Federal and state health care reform programs could increase our costs with regard to medical coverage of our employees, which could reduce profitability and affect our results of operations and financial condition. In addition, obligations related to our pension and other postretirement plans reflect assumptions that affect the planned funding and costs of these plans, including the actual return on plan assets, discount rates, plan participant population demographics and changes in pension regulations. Changes in these assumptions may affect plan funding, cash flow and results of operations, and our costs and funding obligations could increase significantly if our plans' actual experience differs from these assumptions.

Our continued success depends in part on our ability to retain and recruit a sufficient number of qualified employees in a competitive environment.

Our continued success depends in part on the retention and recruitment of skilled personnel, as well as the effective management of succession for key employees. Skilled and experienced personnel in our industry, including engineering, management, marketing, technical and staff personnel, are in high demand and competition for their talents is intense. There can be no assurance that we will be able to successfully retain and recruit the key engineering, management and technical personnel that we require to execute our business strategy. Our ability to recruit internationally or deploy employees to various locations may be limited by immigration laws.

Material impairments of our goodwill or intangible assets could adversely affect our results of operations.

We have a significant amount of goodwill and intangible assets on our consolidated balance sheet. Charges associated with impairments of goodwill or intangible assets could adversely affect our financial condition and results of operations.

ITEM 1B. Unresolved staff comments

Not applicable.

ITEM 2. Properties

Our principal executive offices are located at 12500 TI Boulevard, Dallas, Texas. The following table indicates the general location of our principal manufacturing and design operations and the reportable segments that make major use of them. Except as otherwise indicated, we own these facilities.

	Analog	Embedded Processing
North Texas (Dallas, Richardson and Sherman)	X	X
Houston, Texas		X
Tucson, Arizona *	X	
Santa Clara, California	X	
South Portland, Maine	X	
Chengdu, China †	X	X
Shanghai, China *	X	X
Freising, Germany	X	X
Bangalore, India †	X	X
Aizu, Japan	X	X
Miho, Japan	X	X
Kuala Lumpur, Malaysia †	X	X
Melaka, Malaysia †	X	
Aguascalientes, Mexico *	X	
Baguio, Philippines †	X	X
Pampanga (Clark), Philippines †	X	X
Taipei, Taiwan †	X	X

* Leased.

† Portions of the facilities are leased and owned. This may include land leases.

Our facilities in the United States contained approximately 12.9 million square feet at December 31, 2019, of which approximately 0.5 million square feet were leased. Our facilities outside the United States contained approximately 9.7 million square feet at December 31, 2019, of which approximately 1.4 million square feet were leased.

At the end of 2019, we occupied substantially all of the space in our facilities.

Leases covering our currently occupied leased facilities expire at varying dates, generally within the next five years. We believe our current properties are suitable and adequate for their intended purpose.

ITEM 3. Legal proceedings

We are involved in various inquiries and proceedings that arise in the ordinary course of our business. We believe that the amount of our liability, if any, will not have a material adverse effect upon our financial condition, results of operations or liquidity.

ITEM 4. Mine safety disclosures

Not applicable.

PART II

ITEM 5. Market for Registrant's common equity, related stockholder matters and issuer purchases of equity securities

TI common stock is quoted on The Nasdaq Global Select Market under the ticker symbol TXN. At December 31, 2019, we had 13,098 stockholders of record.

The following table contains information regarding our purchases of our common stock during the fourth quarter of 2019.

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs (a)	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs (a)
October 1, 2019 through October 31, 2019	1,420,035	\$ 124.15	1,413,384	\$ 13.50 billion
November 1, 2019 through November 30, 2019	2,013,945	118.57	2,013,945	13.26 billion
December 1, 2019 through December 31, 2019	618,048	120.37	618,048	13.18 billion
Total	<u>4,052,028</u> (b)	\$ 120.80 (b)	<u>4,045,377</u>	\$ 13.18 billion (c)

- (a) All open-market purchases during the quarter were made under the authorization from our board of directors to purchase up to \$6.0 billion of additional shares of TI common stock announced September 21, 2017. On September 20, 2018, our board of directors authorized the purchase of an additional \$12.0 billion of our common stock.
- (b) In addition to open-market purchases, 6,651 shares of common stock were surrendered by employees to satisfy tax withholding obligations in connection with the vesting of restricted stock units.
- (c) As of December 31, 2019, this amount consisted of the remaining portion of the \$6.0 billion authorized in September 2017 and the \$12.0 billion authorized in September 2018. No expiration date has been specified for these authorizations.

ITEM 6. Selected financial data

(Millions of dollars, except share and per-share amounts)	For Years Ended December 31,				
	2019	2018	2017	2016	2015
Cash flow data:					
Cash flows from operating activities	\$ 6,649	\$ 7,189	\$ 5,363	\$ 4,614	\$ 4,397
Capital expenditures	847	1,131	695	531	551
Free cash flow (a)	5,802	6,058	4,668	4,083	3,846
Dividends paid	3,008	2,555	2,104	1,646	1,444
Stock repurchases	2,960	5,100	2,556	2,132	2,741
Income statement data:					
Revenue by segment:					
Analog	10,223	10,801	9,900	8,536	8,339
Embedded Processing	2,943	3,554	3,498	3,023	2,787
Other	1,217	1,429	1,563	1,811	1,874
Revenue	14,383	15,784	14,961	13,370	13,000
Gross profit	9,164	10,277	9,614	8,257	7,575
Operating expenses (R&D and SG&A)	3,189	3,243	3,202	3,098	2,995
Acquisition charges	288	318	318	319	329
Restructuring charges/other	(36)	3	11	(15)	(71)
Operating profit	5,723	6,713	6,083	4,855	4,322
Net income	\$ 5,017	\$ 5,580	\$ 3,682	\$ 3,595	\$ 2,986

A portion of net income is allocated to unvested restricted stock units (RSUs) on which we pay dividend equivalents. Diluted earnings per share (EPS) is calculated using the following:

Net income	\$ 5,017	\$ 5,580	\$ 3,682	\$ 3,595	\$ 2,986
Income allocated to RSUs	(31)	(42)	(33)	(44)	(42)
Income allocated to common shares for diluted EPS	\$ 4,986	\$ 5,538	\$ 3,649	\$ 3,551	\$ 2,944
Average diluted shares outstanding (millions)	952	990	1,012	1,021	1,043
Diluted EPS	\$ 5.24	\$ 5.59	\$ 3.61	\$ 3.48	\$ 2.82
Cash dividends declared per common share	\$ 3.21	\$ 2.63	\$ 2.12	\$ 1.64	\$ 1.40

(a) Free cash flow is a non-GAAP measure derived by subtracting capital expenditures from cash flows from operating activities.

(Millions of dollars)	December 31,				
	2019	2018	2017	2016	2015
Balance sheet data:					
Cash, cash equivalents and short-term investments	\$ 5,387	\$ 4,233	\$ 4,469	\$ 3,490	\$ 3,218
Total assets	18,018	17,137	17,642	16,431	16,230
Current portion of long-term debt	500	749	500	631	1,000
Long-term debt	5,303	4,319	3,577	2,978	3,120

See "Management's discussion and analysis of financial condition and results of operations" and "Financial statements and supplementary data."

ITEM 7. Management's discussion and analysis of financial condition and results of operations

Overview

We design, make and sell semiconductors to electronics designers and manufacturers all over the world. For many years, we have run our business with three overarching ambitions in mind. First, we will act like owners who will own the company for decades. Second, we will adapt and succeed in a world that is ever changing. And third, we will be a company that we are personally proud to be a part of and that we would want as our neighbor. When we are successful in achieving these ambitions, our employees, customers, communities and shareholders all win.

Our business model is designed around the following four sustainable competitive advantages that we believe, in combination, put us in a unique class of companies:

- *A strong foundation of manufacturing and technology.* We invest in manufacturing technologies and do most of our manufacturing in-house. This strategic decision to directly control our manufacturing helps ensure a consistent supply of products for our customers and also allows us to invest in technology that differentiates the features of our products. We have focused on creating a competitive manufacturing cost advantage by investing in our advanced analog 300-millimeter capacity, which has about a 40% cost advantage per unpackaged chip over 200-millimeter. To strengthen this advantage, we are moving forward with our plan to build our new 300-millimeter wafer fabrication facility in Richardson, Texas, as 300-millimeter wafers will continue to support the majority of our Analog growth.
- *Broad portfolio of differentiated analog and embedded processing products.* Our customers need multiple chips for their systems. The breadth of our portfolio means we can meet more of these needs than our competitors can, which gives us access to more customers and the opportunity to sell more products and generate more revenue per customer system. We invest more than \$1 billion each year to develop new products for our portfolio, which includes tens of thousands of products.
- *Reach of market channels.* Customers often begin their initial product selection process and design-in journey on our website, and the breadth of our portfolio attracts more customers to our website than any of our competitors' websites. Our web presence and global sales and applications team are advantages that give us unique access and insight to about 100,000 customers designing TI semiconductors into their end products.
- *Diversity and longevity of our products, markets and customer positions.* Together, the attributes above result in diverse and long-lived positions that deliver high terminal value to our shareholders. Because of the breadth of our portfolio, we are not dependent on any single product, customer, technology or market. Some of our products generate revenue for decades, which strengthens the return on our investments.

Our strategic focus, and where we invest the majority of our resources, is on Analog and Embedded Processing, with a particular emphasis on designing and selling those products into the industrial and automotive markets. We believe these markets represent the best growth opportunities over the next decade or longer, due to increasing semiconductor content. Additionally, analog and embedded processing products sold into industrial and automotive markets provide long product life cycles, intrinsic diversity and less capital-intensive manufacturing, which we believe offer stability, profitability and strong cash generation.

This business model is the foundation of our capital management strategy, which is based on our belief that free cash flow growth, especially on a per-share basis, is important for maximizing shareholder value over the long term. We also believe that free cash flow will be valued only if it is productively invested in the business or returned to shareholders.

The combined effect of our ambitions, business model and sustainable competitive advantages is that we have continued to build a stronger company. Over time, we have gained market share in Analog and Embedded Processing and grown and returned all free cash flow to our owners.

Management's discussion and analysis of financial condition and results of operations (MD&A) should be read in conjunction with the financial statements and the related notes that appear elsewhere in this document. In the following discussion of our results of operations:

- Our segments represent groups of similar products that are combined on the basis of similar design and development requirements, product characteristics, manufacturing processes and distribution channels, and how management allocates resources and measures results. See Note 1 to the financial statements for more information regarding our segments.
- When we discuss our results:
 - Unless otherwise noted, changes in our revenue are attributable to changes in customer demand, which are evidenced by fluctuations in shipment volumes.

- New products do not tend to have a significant impact on our revenue in any given period because we sell such a large number of products.
- From time to time, our revenue and gross profit are affected by changes in demand for higher-priced or lower-priced products, which we refer to as changes in the “mix” of products shipped.
- Because we own much of our manufacturing capacity, a significant portion of our operating cost is fixed. When factory loadings decrease, our fixed costs are spread over reduced output and, absent other circumstances, our profit margins decrease. Conversely, as factory loadings increase, our fixed costs are spread over increased output and, absent other circumstances, our profit margins increase. Increases and decreases in factory loadings tend to correspond to increases and decreases in demand.
- All dollar amounts in the tables are stated in millions of U.S. dollars.

Our results of operations discussed below provides details of our financial results for 2019 and 2018 and year-to-year comparisons between 2019 and 2018. Discussion of 2017 items and year-to-year comparisons between 2018 and 2017 that are not included in this Form 10-K can be found in “Management’s discussion and analysis of financial condition and results of operations” in Part II, Item 7 of the Company’s Annual Report on Form 10-K for the year ended December 31, 2018.

Results of operations

In 2019, we continued our focus on analog and embedded processing products and the industrial and automotive markets. Together, these products and markets represent highly diverse opportunities with thousands of applications and long-term growth potential. Gross margin of 63.7% reflected the quality of our product portfolio, as well as the efficiency of our manufacturing strategy, including the benefit of 300-millimeter Analog production.

Our focus on Analog and Embedded Processing allows us to generate strong cash flow from operations. Our cash flow from operations of \$6.65 billion underscored the strength of our business model. Free cash flow was \$5.80 billion and represented 40.3% of revenue, up from 38.4% a year ago. During 2019, we returned \$5.97 billion to shareholders through a combination of stock repurchases and dividends. Our strategy is to return all free cash flow to shareholders. Our dividends represented 52% of free cash flow, underscoring their sustainability. For an explanation of free cash flow, see the Non-GAAP financial information section.

Details of financial results – 2019 compared with 2018

Revenue of \$14.38 billion decreased \$1.40 billion, or 9%, primarily due to lower revenue from Embedded Processing and Analog.

Gross profit of \$9.16 billion was down \$1.11 billion, or 11%, primarily due to lower revenue. As a percentage of revenue, gross profit decreased to 63.7% from 65.1%.

Operating expenses (R&D and SG&A) were \$3.19 billion compared with \$3.24 billion.

Acquisition charges of \$288 million were non-cash. See Note 7 to the financial statements.

Restructuring charges/other was a credit of \$36 million due to the sale of our manufacturing facility in Greenock, Scotland.

Operating profit was \$5.72 billion, or 39.8% of revenue, compared with \$6.71 billion, or 42.5% of revenue.

Other income and expense (OI&E) was \$175 million of income compared with \$98 million of income. See Note 12 to the financial statements.

Interest and debt expense of \$170 million increased \$45 million due to the issuance of additional long-term debt.

Our provision for income taxes was \$711 million compared with \$1.11 billion. The decrease was due to lower income before income taxes and a lower annual operating tax rate. Our annual operating tax rate, which does not include discrete tax items, was 16% compared with 20% in 2018. We use “annual operating tax rate” to describe the estimated annual effective tax rate, as explained further in the Non-GAAP financial information section.

Our effective tax rate, which includes discrete tax items, was 12% in 2019 compared with 17% in 2018. See Note 4 to the financial statements for a reconciliation of the U.S. statutory income tax rate to our effective tax rate.

Net income was \$5.02 billion compared with \$5.58 billion. EPS was \$5.24 compared with \$5.59.

Segment results – 2019 compared with 2018

Analog (includes Power, Signal Chain and High Volume product lines)

	2019	2018	Change
Revenue	\$ 10,223	\$ 10,801	(5)%
Operating profit	4,477	5,109	(12)%
Operating profit % of revenue	43.8%	47.3%	

Analog revenue decreased due to Power, High Volume and, to a lesser extent, Signal Chain. Operating profit decreased primarily due to lower revenue and associated gross profit.

Embedded Processing (includes Connected Microcontrollers and Processors product lines)

	2019	2018	Change
Revenue	\$ 2,943	\$ 3,554	(17)%
Operating profit	907	1,205	(25)%
Operating profit % of revenue	30.8%	33.9%	

Embedded Processing revenue decreased in both product lines, led by Processors. Operating profit decreased due to lower revenue and associated gross profit.

Other (includes DLP® products, calculators and custom ASIC products)

	2019	2018	Change
Revenue	\$ 1,217	\$ 1,429	(15)%
Operating profit *	339	399	(15)%
Operating profit % of revenue	27.9%	27.9%	

* Includes acquisition charges and restructuring charges/other

Other revenue decreased \$212 million, and operating profit decreased \$60 million.

Financial condition

At the end of 2019, total cash (cash and cash equivalents plus short-term investments) was \$5.39 billion, an increase of \$1.15 billion from the end of 2018.

Accounts receivable were \$1.07 billion, a decrease of \$133 million compared with the end of 2018. Days sales outstanding were 29 at the end of both 2019 and 2018.

Inventory was \$2.00 billion, a decrease of \$216 million from the end of 2018. Days of inventory at the end of 2019 were 144 compared with 152 at the end of 2018.

Liquidity and capital resources

Our primary source of liquidity is cash flow from operations. Additional sources of liquidity are cash and cash equivalents, short-term investments and a variable rate, revolving credit facility. Cash flows from operating activities for 2019 were \$6.65 billion, a decrease of \$540 million primarily due to lower net income.

Our revolving credit facility is with a consortium of investment-grade banks and allows us to borrow up to \$2 billion until March 2024. This credit facility also serves as support for the issuance of commercial paper. As of December 31, 2019, our credit facility was undrawn, and we had no commercial paper outstanding.

Investing activities for 2019 used \$1.92 billion compared with \$78 million in 2018. Capital expenditures were \$847 million compared with \$1.13 billion in 2018 and were primarily for semiconductor manufacturing equipment in both periods. Short-term investments used cash of \$1.14 billion in 2019 and provided cash proceeds of \$1.07 billion in 2018.

Financing activities for 2019 used \$4.73 billion compared with \$6.33 billion in 2018. In 2019, we received net proceeds of \$1.49 billion from the issuance of fixed-rate, long-term debt and retired maturing debt of \$750 million. In 2018, we received net proceeds of \$1.50 billion from the issuance of fixed-rate, long-term debt and retired maturing debt of \$500 million. Dividends paid in 2019 were \$3.01 billion compared with \$2.56 billion in 2018, reflecting an increase in the dividend rate, partially offset by fewer shares outstanding. We used \$2.96 billion to repurchase 27.4 million shares of our common stock compared with \$5.10 billion used in 2018 to repurchase 49.5 million shares. Employee exercises of stock options provided cash proceeds of \$539 million compared with \$373 million in 2018.

We had \$2.44 billion of cash and cash equivalents and \$2.95 billion of short-term investments as of December 31, 2019. We believe we have the necessary financial resources and operating plans to fund our working capital needs, capital expenditures, dividend and debt-related payments, and other business requirements for at least the next 12 months.

Non-GAAP financial information

This MD&A includes references to free cash flow and ratios based on that measure. These are financial measures that were not prepared in accordance with generally accepted accounting principles in the United States (GAAP). Free cash flow was calculated by subtracting capital expenditures from the most directly comparable GAAP measure, cash flows from operating activities (also referred to as cash flow from operations).

We believe that free cash flow and the associated ratios provide insight into our liquidity, our cash-generating capability and the amount of cash potentially available to return to shareholders, as well as insight into our financial performance. These non-GAAP measures are supplemental to the comparable GAAP measures.

Reconciliation to the most directly comparable GAAP measures is provided in the table below.

	For Years Ended December 31,	
	2019	2018
Cash flow from operations (GAAP)	\$ 6,649	\$ 7,189
Capital expenditures	(847)	(1,131)
Free cash flow (non-GAAP)	<u>\$ 5,802</u>	<u>\$ 6,058</u>
Revenue	<u>\$ 14,383</u>	<u>\$ 15,784</u>
Cash flow from operations as a percentage of revenue (GAAP)	46.2%	45.5%
Free cash flow as a percentage of revenue (non-GAAP)	40.3%	38.4%

This MD&A also includes references to an annual operating tax rate, a non-GAAP term we use to describe the estimated annual effective tax rate, a GAAP measure that by definition does not include discrete tax items. We believe the term annual operating tax rate helps differentiate from the effective tax rate, which includes discrete tax items.

Long-term contractual obligations

Contractual Obligations	Payments Due by Period				
	2020	2021/2022	2023/2024	Thereafter	Total
Long-term debt (a)	\$ 669	\$ 1,349	\$ 1,060	\$ 5,488	\$ 8,566
Purchase commitments (b)	452	407	97	109	1,065
Transition tax on indefinitely reinvested earnings (c)	—	100	237	169	506
Operating leases (d)	75	114	66	131	386
Deferred compensation plans (e)	23	63	54	135	275
Total (f)	\$ 1,219	\$ 2,033	\$ 1,514	\$ 6,032	\$ 10,798

- (a) Principal and related interest payments for our long-term debt obligations, including amounts classified as the current portion of long-term debt.
- (b) Includes payments for software licenses and contractual arrangements with suppliers when there is a fixed, non-cancellable payment schedule or when minimum payments are due with a reduced delivery schedule. Excludes cancellable arrangements. See Note 11 to the financial statements.
- (c) Includes payments for the one-time transition tax on our indefinitely reinvested earnings related to the 2017 enactment of the U.S. Tax Cuts and Jobs Act. See Note 4 to the financial statements.
- (d) Includes minimum payments for leased facilities and equipment and purchases of industrial gases under contracts accounted for as operating leases. See Note 10 to the financial statements.
- (e) Estimated payments for certain liabilities that existed as of December 31, 2019.
- (f) Excludes \$303 million of uncertain tax liabilities under ASC 740, as well as any planned future funding contributions to retirement benefit plans. Amounts associated with uncertain tax liabilities have been excluded because of the difficulty in making reasonably reliable estimates of the timing of cash settlements with the respective taxing authorities. Regarding future funding of retirement benefit plans, we plan to contribute about \$20 million in 2020, but funding projections beyond 2020 are not practical to estimate due to the rules affecting tax-deductible contributions and the impact from the plans' asset performance, interest rates and potential U.S. and non-U.S. legislation.

Critical accounting policies

Our accounting policies are more fully described in Note 2 of the consolidated financial statements. As disclosed in Note 2, the preparation of consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions about future events that affect the amounts reported in the financial statements and accompanying notes. However, based on facts and circumstances inherent in developing estimates and assumptions, management believes it is unlikely that applying other estimates and assumptions would have a material impact on the financial statements. We consider the following accounting policies to be those that are most important to the portrayal of our financial condition and that require a higher degree of judgment.

Revenue recognition

Based on management's assessment of the revenue recognition criteria, we generally recognize revenue from sales of our products to distributors upon shipment or delivery to the distributors. For our consignment arrangements with distributors, delivery occurs and revenue is recognized when the distributor pulls product from consignment inventory that we store at designated locations. Recognition is not contingent upon resale of the products to the distributors' customers in either scenario.

Revenue is recognized net of allowances, which are management's estimates of future credits to be granted to distributors under programs common in the semiconductor industry. These allowances are not material and generally include special pricing arrangements, product returns due to quality issues, and incentives designed to maximize growth opportunities.

Allowances are based on analysis of historical data and contractual terms and are recorded when revenue is recognized. We believe we can reasonably and reliably estimate allowances for credits to distributors in a timely manner.

Income taxes

In determining net income for financial statement purposes, we must make certain estimates and judgments in the calculation of tax provisions and the resultant tax liabilities and in the recoverability of deferred tax assets that arise from temporary differences between the tax and financial statement recognition of revenue and expense.

In the ordinary course of global business, there may be many transactions and calculations where the ultimate tax outcome is uncertain. The calculation of tax liabilities involves dealing with uncertainties in the interpretation and application of complex tax laws, and significant judgment is necessary to (i) determine whether, based on the technical merits, a tax position is more likely than not to be sustained and (ii) measure the amount of tax benefit that qualifies for recognition. We recognize potential liabilities for anticipated tax audit issues in the United States and other tax jurisdictions based on an estimate of the ultimate resolution of whether, and the extent to which, additional taxes will be due. Although we believe the estimates are reasonable, no assurance can be given that the final outcome of these matters will not be different from what is reflected in the historical income tax provisions and accruals.

As part of our financial process, we must assess the likelihood that our deferred tax assets can be recovered. If recovery is not likely, the provision for taxes must be increased by recording a reserve in the form of a valuation allowance for the deferred tax assets that are estimated not to be ultimately recoverable. Our judgment regarding future recoverability of our deferred tax assets may change due to various factors, including changes in U.S. or international tax laws and changes in market conditions and their impact on our assessment of taxable income in future periods. These changes, if any, may require adjustments to the deferred tax assets and an accompanying reduction or increase in net income in the period when such determinations are made.

Inventory valuation allowances

Inventory is valued net of allowances for unsalable or obsolete raw materials, work-in-process and finished goods. Statistical allowances are determined quarterly for raw materials and work-in-process based on historical disposals of inventory for salability and obsolescence reasons. For finished goods, quarterly statistical allowances are determined by comparing inventory levels of individual parts to historical shipments, current backlog and estimated future sales in order to identify inventory considered unlikely to be sold. A specific allowance for each material type will be carried if there is a significant event not captured by the statistical allowance, such as an end-of-life part or demand with imminent risk of cancellation. Allowances are also calculated quarterly for instances where inventoried costs for individual products are in excess of the net realizable value for those products. Actual future write-offs of inventory for salability and obsolescence reasons may differ from estimates and calculations used to determine valuation allowances due to changes in customer demand, customer negotiations, technology shifts and other factors.

Changes in accounting standards

See Note 2 to the financial statements for information regarding the status of new accounting and reporting standards.

Off-balance sheet arrangements

As of December 31, 2019, we had no significant off-balance sheet arrangements as defined in Item 303(a)(4)(ii) of SEC Regulation S-K.

Commitments and contingencies

See Note 11 to the financial statements for a discussion of our commitments and contingencies.

ITEM 7A. Quantitative and qualitative disclosures about market risk

Foreign exchange risk

The U.S. dollar is our functional currency for financial reporting. Our non-U.S. entities own assets or liabilities denominated in U.S. dollars or other currencies. Exchange rate fluctuations impact taxable income in those jurisdictions and consequently impact our effective tax rate.

Our balance sheet also reflects amounts remeasured from non-U.S. dollar currencies. Because most of the aggregate non-U.S. dollar balance sheet exposure is hedged by forward currency exchange contracts, based on year-end 2019 balances and currency exchange rates, a hypothetical 10% plus or minus fluctuation in non-U.S. currency exchange rates relative to the U.S. dollar would result in a pretax currency exchange gain or loss of less than \$1 million.

We use these forward currency exchange contracts to reduce the earnings impact that exchange rate fluctuations may have on our non-U.S. dollar net balance sheet exposures. As of December 31, 2019, we had forward currency exchange contracts outstanding with a notional value of \$458 million to hedge net balance sheet exposures (including \$136 million to sell Japanese yen, \$106 million to sell Indian rupees and \$74 million to sell British pounds). Similar hedging activities existed at year-end 2018.

Interest rate risk

We have the following potential exposure to changes in interest rates: (i) the effect of changes in interest rates on the fair value of our investments in cash equivalents and short-term investments, which could produce a gain or a loss; and (ii) the effect of changes in interest rates on the fair value of our debt.

As of December 31, 2019, a hypothetical 100 basis point increase in interest rates would decrease the fair value of our investments in cash equivalents and short-term investments by about \$8 million and decrease the fair value of our long-term debt by \$532 million. Because interest rates on our long-term debt are fixed, changes in interest rates would not affect the cash flows associated with long-term debt.

Equity risk

Long-term investments at year-end 2019 include the following:

- *Investments in mutual funds* – includes mutual funds that were selected to generate returns that offset changes in certain liabilities related to deferred compensation arrangements. The mutual funds hold a variety of debt and equity investments.
- *Investments in venture capital funds* – includes investments in limited partnerships (accounted for under either the equity method or at cost as non-marketable equity securities).
- *Equity investments* – includes non-marketable (non-publicly traded) equity securities.

Investments in mutual funds are stated at fair value. Changes in prices of the mutual fund investments are expected to offset related changes in deferred compensation liabilities such that a 10% increase or decrease in the investments' fair values would not materially affect operating results. Non-marketable equity securities and certain venture capital funds are stated at cost minus impairment, if any, plus or minus changes resulting from qualifying observable price changes. Investments in the remaining venture capital funds are stated using the equity method. See Note 6 to the financial statements for details of equity and other long-term investments.

ITEM 8. Financial statements and supplementary data

List of financial statements:

- Income for each of the three years in the period ended December 31, 2019
- Comprehensive income for each of the three years in the period ended December 31, 2019
- Balance sheets as of December 31, 2019 and 2018
- Cash flows for each of the three years in the period ended December 31, 2019
- Stockholders' equity for each of the three years in the period ended December 31, 2019

Schedules have been omitted because the required information is not present or not present in amounts sufficient to require submission of the schedule or because the information required is included in the consolidated financial statements or the notes thereto.

Consolidated Statements of Income

(Millions of dollars, except share and per-share amounts)

For Years Ended December 31,

	2019	2018	2017
Revenue	\$ 14,383	\$ 15,784	\$ 14,961
Cost of revenue (COR)	5,219	5,507	5,347
Gross profit	9,164	10,277	9,614
Research and development (R&D)	1,544	1,559	1,508
Selling, general and administrative (SG&A)	1,645	1,684	1,694
Acquisition charges	288	318	318
Restructuring charges/other	(36)	3	11
Operating profit	5,723	6,713	6,083
Other income (expense), net (OI&E)	175	98	75
Interest and debt expense	170	125	78
Income before income taxes	5,728	6,686	6,080
Provision for income taxes	711	1,106	2,398
Net income	\$ 5,017	\$ 5,580	\$ 3,682
Earnings per common share (EPS):			
Basic	\$ 5.33	\$ 5.71	\$ 3.68
Diluted	\$ 5.24	\$ 5.59	\$ 3.61
Average shares outstanding (millions):			
Basic	936	970	991
Diluted	952	990	1,012

A portion of net income is allocated to unvested restricted stock units (RSUs) on which we pay dividend equivalents. Diluted EPS is calculated using the following:

Net income	\$ 5,017	\$ 5,580	\$ 3,682
Income allocated to RSUs	(31)	(42)	(33)
Income allocated to common stock for diluted EPS	\$ 4,986	\$ 5,538	\$ 3,649

See accompanying notes.

Consolidated Statements of Comprehensive Income
(Millions of dollars)

	For Years Ended December 31,		
	2019	2018	2017
Net income	\$ 5,017	\$ 5,580	\$ 3,682
Other comprehensive income (loss)			
Net actuarial losses of defined benefit plans:			
Adjustments, net of tax effect of (\$37), \$35 and (\$26)	88	(98)	92
Recognized within net income, net of tax effect of (\$13), (\$15) and (\$27)	38	50	56
Prior service credit of defined benefit plans:			
Adjustments, net of tax effect of \$0, \$1 and \$1	—	(6)	(2)
Recognized within net income, net of tax effect of \$0, \$1 and \$1	—	(3)	(5)
Derivative instruments:			
Change in fair value, net of tax effect of \$0, \$1 and \$0	—	(2)	—
Recognized within net income, net of tax effect of \$0, \$0 and \$0	—	—	1
Other comprehensive income (loss), net of taxes	126	(59)	142
Total comprehensive income	\$ 5,143	\$ 5,521	\$ 3,824

See accompanying notes.

Consolidated Balance Sheets

(Millions of dollars, except share amounts)

December 31,

2019 2018

Assets

Current assets:

Cash and cash equivalents	\$ 2,437	\$ 2,438
Short-term investments	2,950	1,795
Accounts receivable, net of allowances of (\$8) and (\$19)	1,074	1,207
Raw materials	176	181
Work in process	916	1,070
Finished goods	909	966
Inventories	2,001	2,217
Prepaid expenses and other current assets	299	440
Total current assets	8,761	8,097
Property, plant and equipment at cost	5,740	5,425
Accumulated depreciation	(2,437)	(2,242)
Property, plant and equipment	3,303	3,183
Long-term investments	300	251
Goodwill	4,362	4,362
Acquisition-related intangibles	340	628
Deferred tax assets	197	295
Capitalized software licenses	69	89
Overfunded retirement plans	218	92
Other long-term assets	468	140
Total assets	\$ 18,018	\$ 17,137

Liabilities and stockholders' equity

Current liabilities:

Current portion of long-term debt	\$ 500	\$ 749
Accounts payable	388	478
Accrued compensation	714	724
Income taxes payable	46	103
Accrued expenses and other liabilities	475	420
Total current liabilities	2,123	2,474
Long-term debt	5,303	4,319
Underfunded retirement plans	93	118
Deferred tax liabilities	78	42
Other long-term liabilities	1,514	1,190
Total liabilities	9,111	8,143

Stockholders' equity:

Preferred stock, \$25 par value. Authorized – 10,000,000 shares		
Participating cumulative preferred – None issued	—	—
Common stock, \$1 par value. Authorized – 2,400,000,000 shares		
Shares issued – 1,740,815,939	1,741	1,741
Paid-in capital	2,110	1,950
Retained earnings	39,898	37,906
Treasury common stock at cost		
Shares: 2019 – 808,784,381; 2018 – 795,665,646	(34,495)	(32,130)
Accumulated other comprehensive income (loss), net of taxes (AOCI)	(347)	(473)
Total stockholders' equity	8,907	8,994
Total liabilities and stockholders' equity	\$ 18,018	\$ 17,137

See accompanying notes.

Consolidated Statements of Cash Flows
(Millions of dollars)

For Years Ended December 31,

	2019	2018	2017
Cash flows from operating activities			
Net income	\$ 5,017	\$ 5,580	\$ 3,682
Adjustments to net income:			
Depreciation	708	590	539
Amortization of acquisition-related intangibles	288	318	318
Amortization of capitalized software	54	46	47
Stock compensation	217	232	242
Gains on sales of assets	(23)	(3)	—
Deferred taxes	81	(105)	112
Increase (decrease) from changes in:			
Accounts receivable	133	71	(7)
Inventories	216	(282)	(167)
Prepaid expenses and other current assets	265	669	76
Accounts payable and accrued expenses	(93)	(7)	51
Accrued compensation	(15)	(7)	(3)
Income taxes payable	(193)	158	468
Changes in funded status of retirement plans	29	36	21
Other	(35)	(107)	(16)
Cash flows from operating activities	<u>6,649</u>	<u>7,189</u>	<u>5,363</u>
Cash flows from investing activities			
Capital expenditures	(847)	(1,131)	(695)
Proceeds from asset sales	30	9	40
Purchases of short-term investments	(3,444)	(5,641)	(4,555)
Proceeds from short-term investments	2,309	6,708	4,095
Other	32	(23)	(12)
Cash flows from investing activities	<u>(1,920)</u>	<u>(78)</u>	<u>(1,127)</u>
Cash flows from financing activities			
Proceeds from issuance of long-term debt	1,491	1,500	1,099
Repayment of debt	(750)	(500)	(625)
Dividends paid	(3,008)	(2,555)	(2,104)
Stock repurchases	(2,960)	(5,100)	(2,556)
Proceeds from common stock transactions	539	373	483
Other	(42)	(47)	(31)
Cash flows from financing activities	<u>(4,730)</u>	<u>(6,329)</u>	<u>(3,734)</u>
Net change in cash and cash equivalents	(1)	782	502
Cash and cash equivalents at beginning of period	2,438	1,656	1,154
Cash and cash equivalents at end of period	<u>\$ 2,437</u>	<u>\$ 2,438</u>	<u>\$ 1,656</u>

See accompanying notes.

Consolidated Statements of Stockholders' Equity (Millions of dollars, except per-share amounts)

	Common Stock	Paid-in Capital	Retained Earnings	Treasury Common Stock	AOCI
Balance, December 31, 2016	\$ 1,741	\$ 1,674	\$ 33,107	\$ (25,523)	\$ (526)
2017					
Net income	—	—	3,682	—	—
Dividends declared and paid (\$2.12 per share)	—	—	(2,104)	—	—
Common stock issued for stock-based awards	—	(138)	—	621	—
Stock repurchases	—	—	—	(2,556)	—
Stock compensation	—	242	—	—	—
Other comprehensive income (loss), net of taxes	—	—	—	—	142
Dividend equivalents on RSUs	—	—	(17)	—	—
Other	—	(2)	(6)	—	—
Balance, December 31, 2017	1,741	1,776	34,662	(27,458)	(384)
2018					
Net income	—	—	5,580	—	—
Dividends declared and paid (\$2.63 per share)	—	—	(2,555)	—	—
Common stock issued for stock-based awards	—	(55)	—	428	—
Stock repurchases	—	—	—	(5,100)	—
Stock compensation	—	232	—	—	—
Other comprehensive income (loss), net of taxes	—	—	—	—	(59)
Dividend equivalents on RSUs	—	—	(17)	—	—
Cumulative effect of accounting changes	—	—	236	—	(30)
Other	—	(3)	—	—	—
Balance, December 31, 2018	1,741	1,950	37,906	(32,130)	(473)
2019					
Net income	—	—	5,017	—	—
Dividends declared and paid (\$3.21 per share)	—	—	(3,008)	—	—
Common stock issued for stock-based awards	—	(55)	—	594	—
Stock repurchases	—	—	—	(2,960)	—
Stock compensation	—	217	—	—	—
Other comprehensive income (loss), net of taxes	—	—	—	—	126
Dividend equivalents on RSUs	—	—	(17)	—	—
Other	—	(2)	—	1	—
Balance, December 31, 2019	\$ 1,741	\$ 2,110	\$ 39,898	\$ (34,495)	\$ (347)

See accompanying notes.

Notes to financial statements

1. Description of business, including segment and geographic area information

We design, make and sell semiconductors to electronics designers and manufacturers all over the world. We have two reportable segments, which are established along major categories of products as follows:

- *Analog* – consisting of the following product lines: Power, Signal Chain and High Volume.
- *Embedded Processing* – consisting of the following product lines: Connected Microcontrollers and Processors.

We report the results of our remaining business activities in Other. Other includes operating segments that do not meet the quantitative thresholds for individually reportable segments and cannot be aggregated with other operating segments. Other includes DLP® products, calculators and custom ASIC products.

In Other, we also include items that are not used in evaluating the results of or in allocating resources to our segments. Examples of these items include acquisition charges (see Note 7); restructuring charges (see Note 12); and certain corporate-level items, such as litigation expenses, environmental costs, insurance settlements, and gains and losses from other activities, including asset dispositions. We allocate the remainder of our expenses associated with corporate activities to our operating segments based on specific methodologies, such as percentage of operating expenses or headcount.

Our centralized manufacturing and support organizations, such as facilities, procurement and logistics, provide support to our operating segments, including those in Other. Costs incurred by these organizations, including depreciation, are charged to the segments on a per-unit basis. Consequently, depreciation expense is not an independently identifiable component within the segments' results and therefore is not provided.

With the exception of goodwill, we do not identify or allocate assets by operating segment, nor does the chief operating decision maker evaluate operating segments using discrete asset information. We have no material intersegment revenue. The accounting policies of the segments are consistent with those described below in the summary of significant accounting policies and practices.

Segment information

	For Years Ended December 31,		
	2019	2018	2017
Revenue:			
Analog	\$ 10,223	\$ 10,801	\$ 9,900
Embedded Processing	2,943	3,554	3,498
Other	1,217	1,429	1,563
Total revenue	<u>\$ 14,383</u>	<u>\$ 15,784</u>	<u>\$ 14,961</u>
Operating profit:			
Analog	\$ 4,477	\$ 5,109	\$ 4,468
Embedded Processing	907	1,205	1,143
Other	339	399	472
Total operating profit	<u>\$ 5,723</u>	<u>\$ 6,713</u>	<u>\$ 6,083</u>

Geographic area information

The following geographic area information includes revenue, based on product shipment destination, and property, plant and equipment, based on physical location. The geographic revenue information does not necessarily reflect end demand by geography because our products tend to be shipped to the locations where our customers manufacture their products.

	For Years Ended December 31,		
	2019	2018	2017
Revenue:			
United States	\$ 1,827	\$ 2,288	\$ 1,901
Asia (a)	8,650	9,240	8,824
Europe, Middle East and Africa	2,707	3,047	2,907
Japan	796	869	1,049
Rest of world	403	340	280
Total revenue	<u>\$ 14,383</u>	<u>\$ 15,784</u>	<u>\$ 14,961</u>

- (a) Revenue from products shipped into China was \$7.2 billion, \$7.0 billion and \$6.6 billion in 2019, 2018 and 2017, respectively, which includes shipments to customers that manufacture in China and then export end products to their customers around the world, as well as distributors that transship inventory through China to service other countries.

	December 31,	
	2019	2018
Property, plant and equipment:		
United States	\$ 1,998	\$ 1,812
Asia (a)	1,046	1,116
Europe, Middle East and Africa	63	84
Japan	185	157
Rest of world	11	14
Total property, plant and equipment	<u>\$ 3,303</u>	<u>\$ 3,183</u>

- (a) Property, plant and equipment at our two sites in the Philippines was \$394 million and \$437 million as of December 31, 2019 and 2018, respectively. Property, plant and equipment at our sites in China was \$304 million and \$313 million as of December 31, 2019 and 2018, respectively.

2. Basis of presentation and significant accounting policies and practices

Basis of presentation

The consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States (GAAP). The basis of these financial statements is comparable for all periods presented herein, except for the effects of adopting a new accounting standard in 2019 related to leases.

The consolidated financial statements include the accounts of all subsidiaries. All intercompany balances and transactions have been eliminated in consolidation. All dollar amounts in the financial statements and tables in these notes, except per-share amounts, are stated in millions of U.S. dollars unless otherwise indicated. We have reclassified certain amounts in the prior periods' financial statements to conform to the 2019 presentation.

The preparation of financial statements requires the use of estimates from which final results may vary.

Significant accounting policies and practices

Revenue recognition

We generate revenue primarily from the sale of semiconductor products, either directly to a customer or to a distributor, or at the conclusion of a consignment process. We have a variety of types of contracts with our customers and distributors. In determining whether a contract exists, we evaluate the terms of the arrangement, the relationship with the customer or distributor and their ability to pay.

We recognize revenue from sales of our products, including sales to our distributors, when control is transferred. Control is considered transferred when title and risk of loss pass, when the customer becomes obligated to pay and, where required, when the customer has accepted the products. This transfer generally occurs at a point in time upon shipment or delivery to the customer or distributor, depending upon the terms of the sales order. Payment for sales to customers and distributors is generally due on our standard commercial terms. For sales to distributors, payment is not contingent upon resale of the products.

Revenue from sales of our products that are subject to inventory consignment agreements is recognized at a point in time, when the customer or distributor pulls product from consignment inventory that we store at designated locations. Delivery and transfer of control occur at that point, when title and risk of loss transfers and the customer or distributor becomes obligated to pay for the products pulled from inventory. Until the products are pulled for use or sale by the customer or distributor, we retain control over the products' disposition, including the right to pull back or relocate the products.

The revenue recognized is adjusted based on allowances, which are prepared on a portfolio basis using a most likely amount methodology based on analysis of historical data and contractual terms. These allowances, which are not material, generally include adjustments for pricing arrangements, product returns and incentives. The length of time between invoicing and payment is not significant under any of our payment terms. In instances where the timing of revenue recognition differs from the timing of invoicing, we have determined our contracts generally do not include a significant financing component.

In addition, we record allowances for accounts receivable that we estimate may not be collected. We monitor collectability of accounts receivable primarily through review of accounts receivable aging. When collection is at risk, we assess the impact on amounts recorded for bad debts and, if necessary, record a charge in the period such determination is made.

We recognize shipping fees, if any, received from customers in revenue. We include the related shipping and handling costs in cost of revenue. The majority of our customers pay these fees directly to third parties.

Advertising costs

We expense advertising and other promotional costs as incurred. This expense was \$30 million, \$34 million and \$39 million in 2019, 2018 and 2017, respectively.

Income taxes

We account for income taxes using an asset and liability approach. We record the amount of taxes payable or refundable for the current year and the deferred tax assets and liabilities for future tax consequences of events that have been recognized in the financial statements or tax returns. We record a valuation allowance when it is more likely than not that some or all of the deferred tax assets will not be realized.

Other assessed taxes

Some transactions require us to collect taxes such as sales, value-added and excise taxes from our customers. These transactions are presented in our Consolidated Statements of Income on a net (excluded from revenue) basis.

Leases

We determine if an arrangement is a lease at inception. Leases are included in other long-term assets, accrued expenses and other liabilities, and other long-term liabilities on our Consolidated Balance Sheets.

Lease assets represent our right to use underlying assets for the lease term, and lease liabilities represent our obligations to make lease payments over the lease term. On the commencement date, leases are evaluated for classification, and assets and liabilities are recognized based on the present value of lease payments over the lease term. We use our incremental borrowing rate based on the information available at commencement in determining the present value of lease payments. Operating lease expense is generally recognized on a straight-line basis over the lease term. Our lease values include options to extend or not to terminate the lease when it is reasonably certain that we will exercise such options.

We have agreements with lease and non-lease components, which are accounted for as a single lease component. Leases with an initial lease term of 12 months or less are not recorded on the balance sheet; we recognize lease expense for these leases on a straight-line basis over the lease term.

Earnings per share (EPS)

We use the two-class method for calculating EPS because the restricted stock units (RSUs) we grant are participating securities containing non-forfeitable rights to receive dividend equivalents. Under the two-class method, a portion of net income is allocated to RSUs and excluded from the calculation of income allocated to common stock, as shown in the table below.

Computation and reconciliation of earnings per common share are as follows (shares in millions):

	For Years Ended December 31,								
	2019			2018			2017		
	Net Income	Shares	EPS	Net Income	Shares	EPS	Net Income	Shares	EPS
Basic EPS:									
Net income	\$ 5,017			\$ 5,580			\$ 3,682		
Income allocated to RSUs	(32)			(43)			(34)		
Income allocated to common stock	<u>\$ 4,985</u>	<u>936</u>	<u>\$ 5.33</u>	<u>\$ 5,537</u>	<u>970</u>	<u>\$ 5.71</u>	<u>\$ 3,648</u>	<u>991</u>	<u>\$ 3.68</u>
Dilutive effect of stock compensation plans		16			20			21	
Diluted EPS:									
Net income	\$ 5,017			\$ 5,580			\$ 3,682		
Income allocated to RSUs	(31)			(42)			(33)		
Income allocated to common stock	<u>\$ 4,986</u>	<u>952</u>	<u>\$ 5.24</u>	<u>\$ 5,538</u>	<u>990</u>	<u>\$ 5.59</u>	<u>\$ 3,649</u>	<u>1,012</u>	<u>\$ 3.61</u>

Potentially dilutive securities representing 6 million, 4 million and 6 million shares of common stock that were outstanding in 2019, 2018 and 2017 respectively, were excluded from the computation of diluted earnings per common share during these periods because their effect would have been anti-dilutive.

Investments

We present investments on our Consolidated Balance Sheets as cash equivalents, short-term investments or long-term investments, which are detailed below. See Note 6 for additional information.

- *Cash equivalents and short-term investments* – We consider investments in available-for-sale debt securities with maturities of 90 days or less from the date of our investment to be cash equivalents. We consider investments in available-for-sale debt securities with maturities beyond 90 days from the date of our investment as being available for use in current operations and include them in short-term investments. The primary objectives of our cash equivalent and short-term investment activities are to preserve capital and maintain liquidity while generating appropriate returns.
- *Long-term investments* – Long-term investments consist of mutual funds, venture capital funds and non-marketable equity securities.

Inventories

Inventories are stated at the lower of cost or estimated net realizable value. Cost is generally computed on a currently adjusted standard cost basis, which approximates cost on a first-in first-out basis. Standard cost is based on the normal utilization of installed factory capacity. Cost associated with underutilization of capacity is expensed as incurred. Inventory held at consignment locations is included in our finished goods inventory.

We review inventory quarterly for salability and obsolescence. A statistical allowance is provided for inventory considered unlikely to be sold. The statistical allowance is based on an analysis of historical disposal activity, historical customer shipments, as well as estimated future sales. A specific allowance for each material type will be carried if there is a significant event not captured by the statistical allowance. We write off inventory in the period in which disposal occurs.

Property, plant and equipment; acquisition-related intangibles; and other capitalized costs

Property, plant and equipment are stated at cost and depreciated over their estimated useful lives using the straight-line method. Our cost basis includes certain assets acquired in business combinations that were initially recorded at fair value as of the date of acquisition. Leasehold improvements are amortized using the straight-line method over the shorter of the remaining lease term or the estimated useful lives of the improvements. We amortize acquisition-related intangibles on a straight-line basis over the estimated economic life of the assets. Capitalized software licenses generally are amortized on a straight-line basis over the term of the license. Fully depreciated or amortized assets are written off against accumulated depreciation or amortization.

Impairments of long-lived assets

We regularly review whether facts or circumstances exist that indicate the carrying values of property, plant and equipment or other long-lived assets, including intangible assets, are impaired. We assess the recoverability of assets by comparing the projected undiscounted net cash flows associated with those assets to their respective carrying amounts. Any impairment charge is based on the excess of the carrying amount over the fair value of those assets. Fair value is determined by available market valuations, if applicable, or by discounted cash flows.

Goodwill

Goodwill is reviewed for impairment annually or more frequently if certain impairment indicators arise. We perform our annual goodwill impairment test as of October 1 for our reporting units, which compares the fair value for each reporting unit to its associated carrying value, including goodwill. See Note 7 for additional information.

Foreign currency

The functional currency for our non-U.S. subsidiaries is the U.S. dollar. Accounts recorded in currencies other than the U.S. dollar are remeasured into the functional currency. Current assets (except inventories), deferred taxes, other assets, current liabilities and long-term liabilities are remeasured at exchange rates in effect at the end of each reporting period. Property, plant and equipment with associated depreciation and inventories are valued at historical exchange rates. Revenue and expense accounts other than depreciation for each month are remeasured at the appropriate daily rate of exchange. Currency exchange gains and losses from remeasurement are credited or charged to OI&E.

Derivatives and hedging

We use derivative financial instruments to manage exposure to foreign exchange risk. These instruments are primarily forward foreign currency exchange contracts, which are used as economic hedges to reduce the earnings impact that exchange rate fluctuations may have on our non-U.S. dollar net balance sheet exposures. Gains and losses from changes in the fair value of these forward foreign currency exchange contracts are credited or charged to OI&E. We do not apply hedge accounting to our foreign currency derivative instruments.

In connection with the issuance of long-term debt, we may use financial derivatives such as treasury-rate lock agreements that are recognized in AOCI and amortized over the life of the related debt. The results of these derivative transactions have not been material.

We do not use derivatives for speculative or trading purposes.

Changes in accounting standards – adopted standards for current periodAccounting Standards Update (ASU) No. 2016-02, Leases (Topic 842)

We adopted ASU No. 2016-02, *Leases* (ASC 842) effective January 1, 2019, using the modified retrospective transition method applied to leases existing at, or entered into after, the adoption date. The reported results for 2019 reflect the application of the new accounting guidance, while the reported results for prior periods are not adjusted and continue to be reported in accordance with our historical accounting under ASC 840, *Leases*. In addition, we elected the package of practical expedients permitted under the transition guidance that allowed us to apply prior conclusions related to lease definition, classification and initial direct costs.

The adoption of the new standard resulted in the recognition of \$229 million of lease liabilities with corresponding lease assets as of January 1, 2019. The standard did not materially impact our results of operations and had no impact on cash flows.

Other standards

The following standards were also adopted:

ASU	Description	Adopted Date
ASU No. 2017-12	<i>Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities</i>	January 1, 2019
ASU No. 2018-14	<i>Compensation – Retirement Benefits – Defined Benefit Plans – General (Subtopic 715-20): Disclosure Framework – Changes to the Disclosure Requirements for Defined Benefit Plans</i>	January 1, 2019

Changes in accounting standards – standards not yet adopted

ASU No. 2016-13, Financial Instruments – Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments

This standard requires entities to use a current lifetime expected credit loss methodology to measure impairments of certain financial assets. Using this methodology will result in earlier recognition of losses than under the current incurred loss approach, which requires waiting to recognize a loss until it is probable of being incurred. Credit losses relating to available-for-sale debt securities will be recorded through an allowance for credit losses rather than as a reduction to the amortized cost basis of the securities. We are adopting this standard effective January 1, 2020, applying the guidance on a modified retrospective basis. In preparation for adoption of the standard, we have updated certain policies and related processes, but this standard will not have a material impact on our financial position or results of operations.

Other standards

We are evaluating the impact of the following standards, but we do not expect them to have a material impact on our financial position or results of operations. We are adopting these standards as of their effective dates.

ASU	Description	Effective Date
ASU No. 2018-13	<i>Fair Value Measurement (Topic 820): Disclosure Framework – Changes to the Disclosure Requirements for Fair Value Measurement</i>	January 1, 2020
ASU No. 2018-15	<i>Intangibles – Goodwill and Other – Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract</i>	January 1, 2020

3. Stock compensation

We have stock options outstanding to participants under long-term incentive plans. The option price per share may not be less than the fair market value of our common stock on the date of the grant. The options have a 10-year term, generally vest ratably over four years, and continue to vest after the option recipient retires.

We also have RSUs outstanding to participants under long-term incentive plans. Each RSU represents the right to receive one share of TI common stock, issued on the vesting date, which is generally four years after the date of grant. RSUs continue to vest after the recipient retires. Holders of RSUs receive an annual cash payment equivalent to the dividends paid on our common stock.

We have options and RSUs outstanding to non-employee directors under director compensation plans. The plans generally provide for annual grants of stock options and RSUs, a one-time grant of RSUs to each new non-employee director and the issuance of TI common stock upon the distribution of stock units credited to director deferred compensation accounts.

We also have an employee stock purchase plan (ESPP) under which options are offered to all eligible employees in amounts based on a percentage of the employee's compensation, subject to a cap. Under the plan, the option price per share is 85% of the fair market value on the exercise date.

Total stock compensation expense recognized is as follows:

	For Years Ended December 31,		
	2019	2018	2017
COR	\$ 21	\$ 25	\$ 36
R&D	66	69	59
SG&A	130	138	147
Total	\$ 217	\$ 232	\$ 242

These amounts include expenses related to non-qualified stock options, RSUs and stock options offered under our ESPP and are net of estimated forfeitures.

We recognize compensation expense for non-qualified stock options and RSUs on a straight-line basis over the minimum service period required for vesting of the award, adjusting for estimated forfeitures based on historical activity. Awards issued to employees who are retirement eligible or nearing retirement eligibility are expensed on an accelerated basis. Options issued under our ESPP are expensed over a three-month period.

Fair-value methods and assumptions

We account for all awards granted under our various stock compensation plans at fair value. We estimate the fair values for non-qualified stock options using the Black-Scholes-Merton option-pricing model with the following weighted average assumptions:

	For Years Ended December 31,		
	2019	2018	2017
Weighted average grant date fair value, per share	\$ 22.08	\$ 23.20	\$ 16.49
Weighted average assumptions used:			
Expected volatility	26%	23%	24%
Expected lives (in years)	7.1	7.2	7.2
Risk-free interest rates	2.66%	2.57%	2.36%
Expected dividend yields	2.95%	2.25%	2.52%

We determine expected volatility on all options granted using available implied volatility rates. We believe that market-based measures of implied volatility are currently the best available indicators of the expected volatility used in these estimates.

We determine expected lives of options based on the historical option exercise experience of our optionees using a rolling 10-year average. We believe the historical experience method is the best estimate of future exercise patterns currently available.

Risk-free interest rates are determined using the implied yield currently available for zero-coupon U.S. government issues with a remaining term equal to the expected life of the options.

Expected dividend yields are based on the annualized approved quarterly dividend rate and the current market price of our common stock at the time of grant. No assumption for a future dividend rate change is included unless there is an approved plan to change the dividend in the near term.

The fair value per share of RSUs is determined based on the closing price of our common stock on the date of grant.

Our ESPP is a discount-purchase plan and consequently the Black-Scholes-Merton option-pricing model is not used to determine the fair value per share of these awards. The fair value per share under this plan equals the amount of the discount.

Long-term incentive and director compensation plans

Stock option and RSU transactions under our long-term incentive and director compensation plans are as follows:

	Stock Options		RSUs	
	Shares	Weighted Average Exercise Price per Share	Shares	Weighted Average Grant Date Fair Value per Share
Outstanding grants, December 31, 2018	39,905,454	\$ 56.10	7,305,543	\$ 66.72
Granted	4,559,093	104.51	1,142,974	106.58
Stock options exercised/RSUs vested	(11,529,174)	44.68	(2,370,762)	52.74
Forfeited and expired	(441,429)	83.89	(179,955)	81.57
Outstanding grants, December 31, 2019	32,493,944	66.57	5,897,800	79.62

The weighted average grant date fair values per share of RSUs granted in 2019, 2018 and 2017 were \$106.58, \$110.05 and \$79.52, respectively. In 2019, 2018 and 2017, the total grant date fair values of shares vested from RSU grants were \$125 million, \$123 million and \$149 million, respectively.

As of December 31, 2019, the number of shares remaining available for future issuance under these plans was 45,082,425.

Summarized information about stock options outstanding as of December 31, 2019, is as follows:

Exercise Price Range	Stock Options Outstanding			Options Exercisable	
	Number Outstanding (Shares)	Weighted Average Remaining Contractual Life (Years)	Weighted Average Exercise Price per Share	Number Exercisable (Shares)	Weighted Average Exercise Price per Share
\$ 23.05 to 127.35	32,493,944	5.9	\$ 66.57	19,646,782	\$ 50.82

In 2019, 2018 and 2017, the aggregate intrinsic values (i.e., the difference in the closing market price on the date of exercise and the exercise price paid by the optionee) of options exercised were \$819 million, \$561 million and \$632 million, respectively.

Summarized information as of December 31, 2019, about outstanding stock options that are vested and expected to vest, as well as stock options that are currently exercisable, is as follows:

	Outstanding Stock Options (Fully Vested and Expected to Vest) (a)	Options Exercisable
Number of outstanding (shares)	32,001,396	19,646,782
Weighted average remaining contractual life (in years)	5.8	4.6
Weighted average exercise price per share	\$ 66.03	\$ 50.82
Intrinsic value (millions of dollars)	\$ 1,992	\$ 1,522

(a) Includes effects of expected forfeitures. Excluding the effects of expected forfeitures, the aggregate intrinsic value of stock options outstanding was \$2.01 billion.

As of December 31, 2019, total future compensation related to equity awards not yet recognized in our Consolidated Statements of Income was \$226 million, consisting of \$98 million related to unvested stock options and \$128 million related to unvested RSUs. The \$226 million is expected to be recognized as follows: \$113 million in 2020, \$72 million in 2021, \$37 million in 2022 and \$4 million in 2023.

Employee stock purchase plan

Options outstanding under the ESPP as of December 31, 2019, had an exercise price equal to 85% of the fair market value of TI common stock on the date of automatic exercise. The automatic exercise occurred on January 2, 2020, resulting in an exercise price of \$110.14 per share. Of the total outstanding options, none were exercisable as of December 31, 2019.

ESPP transactions are as follows:

	Shares	Exercise Price
Outstanding grants, December 31, 2018	229,836	\$ 80.29
Granted	742,819	102.34
Exercised	(798,806)	94.30
Outstanding grants, December 31, 2019	173,849	110.14

The weighted average grant date fair values per share of options granted under the ESPP in 2019, 2018 and 2017 were \$18.05, \$15.43 and \$12.99, respectively. The total intrinsic value of options exercised under these plans was \$13 million in 2019, 2018 and 2017.

As of December 31, 2019, the number of shares remaining available for future issuance under this plan was 33,812,282.

Effect on shares outstanding and treasury shares

Treasury shares were acquired in connection with the board-authorized stock repurchase program. As of December 31, 2019, \$13.18 billion of stock repurchase authorizations remain, and no expiration date has been specified.

Our current practice is to issue shares of common stock from treasury shares upon exercise of stock options, distribution of director deferred compensation and vesting of RSUs. The following table reflects the changes in our treasury shares:

	Stock Options	RSUs	Treasury Shares
Balance, December 31, 2016			744,831,978
Repurchases			30,570,129
Shares used for:			
Stock options/RSUs	(13,313,019)	(4,419,464)	
Stock applied to taxes	—	1,058,100	
ESPP	(1,065,757)	—	
Director deferred stock units	—	—	(4,750)
Total issued	(14,378,776)	(3,361,364)	(17,740,140)
Balance, December 31, 2017			757,657,217
Repurchases			49,482,220
Shares used for:			
Stock options/RSUs	(8,432,458)	(2,769,994)	
Stock applied to taxes	—	553,720	
ESPP	(819,878)	—	
Director deferred stock units	—	—	(5,181)
Total issued	(9,252,336)	(2,216,274)	(11,468,610)
Balance, December 31, 2018			795,665,646
Repurchases			27,398,701
Shares used for:			
Stock options/RSUs	(11,529,174)	(2,370,762)	
Stock applied to taxes	—	490,347	
ESPP	(798,806)	—	
Director deferred stock units	—	—	(71,571)
Total issued	(12,327,980)	(1,880,415)	(14,208,395)
Balance, December 31, 2019			808,784,381

The effects on cash flows are as follows:

	For Years Ended December 31,		
	2019	2018	2017
Proceeds from common stock transactions (a)	\$ 539	\$ 373	\$ 483
Tax benefit realized from stock compensation	\$ 224	\$ 179	\$ 341
Reduction to deferred tax asset	(49)	(43)	(91)
Excess tax benefit for stock compensation	\$ 175	\$ 136	\$ 250

(a) Net of taxes paid for employee shares withheld of \$52 million, \$60 million and \$83 million in 2019, 2018 and 2017, respectively.

4. Income taxes

Income before income taxes is comprised of the following components:

	For Years Ended December 31,		
	2019	2018	2017
U.S.	\$ 4,915	\$ 5,672	\$ 5,130
Non-U.S.	813	1,014	950
Total	\$ 5,728	\$ 6,686	\$ 6,080

Provision for income taxes is comprised of the following components:

	For Years Ended December 31,								
	2019			2018			2017		
	Current	Deferred	Total	Current	Deferred	Total	Current	Deferred	Total
U.S. federal	\$ 483	\$ 25	\$ 508	\$ 979	\$ (98)	\$ 881	\$ 2,101	\$ 51	\$ 2,152
Non-U.S.	135	56	191	225	(8)	217	173	61	234
U.S. state	12	—	12	7	1	8	12	—	12
Total	\$ 630	\$ 81	\$ 711	\$ 1,211	\$ (105)	\$ 1,106	\$ 2,286	\$ 112	\$ 2,398

Principal reconciling items from the U.S. statutory income tax rate to the effective tax rate (provision for income taxes as a percentage of income before income taxes) are as follows:

	For Years Ended December 31,		
	2019	2018	2017
U.S. statutory income tax rate	21.0%	21.0%	35.0%
U.S. tax benefit for foreign derived intangible income	(4.9)	(5.3)	—
U.S. excess tax benefit for stock compensation	(3.1)	(2.0)	(4.1)
U.S. R&D tax credit	(1.4)	(1.3)	(1.1)
Non-U.S. effective tax rates	0.3	0.1	(2.5)
U.S. Tax Act transitional non-cash expense	—	4.2	—
U.S. Tax Act enactment-date effects and measurement period adjustments	—	(0.7)	12.7
U.S. tax benefit for manufacturing	—	—	(1.6)
Other	0.5	0.5	1.0
Effective tax rate	12.4%	16.5%	39.4%

The U.S. Tax Cuts and Jobs Act (the Tax Act) was enacted on December 22, 2017. The Tax Act reduces the U.S. statutory income tax rate from 35% to 21% and requires companies to pay a one-time tax on indefinitely reinvested earnings of certain non-U.S. subsidiaries that were previously tax deferred. We applied the guidance in Staff Accounting Bulletin No. 118 when accounting for the enactment-date effects of the Tax Act in 2017 and throughout 2018. As of December 31, 2018, we completed our accounting for the enactment-date income tax effects of the Tax Act. We booked a provisional amount of \$773 million in 2017 and reduced our provisional amount by \$44 million in 2018, for a net of \$729 million.

The earnings represented by non-cash operating assets, such as fixed assets and inventory, will continue to be permanently reinvested outside the United States. Provisions of the Tax Act, such as the one-time tax on indefinitely reinvested earnings and the global intangible low-taxed income (GILTI) tax for years beginning in 2018, eliminate any additional U.S. taxation resulting from repatriation of earnings of non-U.S. subsidiaries to the United States. Consequently, no U.S. tax provision has been made for the future remittance of these earnings. However, withholding or distribution taxes in certain non-U.S. jurisdictions will be incurred upon repatriation of available cash to the United States. A provision has been made for deferred taxes on these undistributed earnings to the extent that repatriation of the available cash to the United States is expected to result in a tax liability. As of December 31, 2019, we have no basis differences that would result in material unrecognized deferred tax liabilities.

We have made an allowable policy election to account for the effects of GILTI as a component of income tax expense in the period in which the tax is incurred.

The primary components of deferred tax assets and liabilities are as follows:

	December 31,	
	2019	2018
Deferred tax assets:		
Deferred loss and tax credit carryforwards	\$ 213	\$ 247
Accrued expenses	113	129
Stock compensation	109	122
Inventories and related reserves	109	107
Retirement costs for defined benefit and retiree health care	49	80
Total deferred tax assets, before valuation allowance	593	685
Valuation allowance	(180)	(172)
Total deferred tax assets, after valuation allowance	413	513
Deferred tax liabilities:		
Property, plant and equipment	(95)	(10)
Acquisition-related intangibles and fair-value adjustments	(82)	(142)
International earnings	(62)	(43)
Other	(55)	(65)
Total deferred tax liabilities	(294)	(260)
Net deferred tax asset	\$ 119	\$ 253

The deferred tax assets and liabilities based on tax jurisdictions are presented on our Consolidated Balance Sheets as follows:

	December 31,	
	2019	2018
Deferred tax assets	\$ 197	\$ 295
Deferred tax liabilities	(78)	(42)
Net deferred tax asset	\$ 119	\$ 253

We make an ongoing assessment regarding the realization of U.S. and non-U.S. deferred tax assets. This assessment is based on our evaluation of relevant criteria, including the existence of deferred tax liabilities that can be used to absorb deferred tax assets, taxable income in prior carryback years and expectations for future taxable income. Valuation allowances increased by \$8 million, \$7 million and \$37 million in 2019, 2018 and 2017, respectively. These changes had no impact to net income in 2019 or 2018.

We have U.S. and non-U.S. tax loss carryforwards of approximately \$6 million, none of which will expire before the year 2029.

Cash payments made for income taxes, net of refunds, were \$570 million, \$705 million and \$1.80 billion in 2019, 2018 and 2017, respectively.

Uncertain tax positions

We operate in a number of tax jurisdictions, and our income tax returns are subject to examination by tax authorities in those jurisdictions who may challenge any item on these tax returns. Because the matters challenged by authorities are typically complex, their ultimate outcome is uncertain. Before any benefit can be recorded in our financial statements, we must determine that it is "more likely than not" that a tax position will be sustained by the appropriate tax authorities. We recognize accrued interest related to uncertain tax positions and penalties as components of OI&E.

The changes in the total amounts of uncertain tax positions are as follows:

	2019	2018	2017
Balance, January 1	\$ 286	\$ 300	\$ 243
Additions based on tax positions related to the current year	3	3	17
Additions for tax positions of prior years	63	1	42
Reductions for tax positions of prior years	(41)	—	(1)
Settlements with tax authorities	(8)	(18)	(1)
Balance, December 31	<u>\$ 303</u>	<u>\$ 286</u>	<u>\$ 300</u>
Interest income (expense) recognized in the year ended December 31	<u>\$ 9</u>	<u>\$ (15)</u>	<u>\$ (19)</u>
Interest payable as of December 31	<u>\$ 44</u>	<u>\$ 49</u>	<u>\$ 38</u>

The liability for uncertain tax positions is a component of other long-term liabilities on our Consolidated Balance Sheets.

All of the \$303 million and \$286 million liabilities for uncertain tax positions as of December 31, 2019 and 2018, respectively, are comprised of positions that, if recognized, would lower the effective tax rate. If these liabilities are ultimately realized, \$2 million and \$30 million of existing deferred tax assets in 2019 and 2018, respectively, would also be realized. It is reasonably possible that the \$303 million liability as of December 31, 2019, could decrease by up to \$249 million in 2020 for the resolution of a tax depreciation-related position.

As of December 31, 2019, the statute of limitations remains open for U.S. federal tax returns for 2013 and following years. Audit activities related to our U.S. federal tax returns through 2012 have been completed except for certain pending tax treaty procedures for relief from double taxation. The procedures for relief from double taxation pertain to U.S. federal tax returns for the years 2007 through 2012. The audit of the U.S. federal tax returns for 2013 through 2015 is underway.

In non-U.S. jurisdictions, the years open to audit represent the years still open under the statute of limitations. With respect to major jurisdictions outside the United States, our subsidiaries are no longer subject to income tax audits for years before 2007.

5. Financial instruments and risk concentration

Financial instruments

We hold derivative financial instruments such as forward foreign currency exchange contracts, the fair value of which was not material as of December 31, 2019. Our forward foreign currency exchange contracts outstanding as of December 31, 2019, had a notional value of \$458 million to hedge our non-U.S. dollar net balance sheet exposures, including \$136 million to sell Japanese yen, \$106 million to sell Indian rupees and \$74 million to sell British pounds.

Our investments in cash equivalents, short-term investments and certain long-term investments, as well as our deferred compensation liabilities, are carried at fair value. Our postretirement plan assets are carried at fair value or net asset value per share. The carrying values for other current financial assets and liabilities, such as accounts receivable and accounts payable, approximate fair value due to the short maturity of such instruments. As of December 31, 2019, the carrying value of long-term debt, including the current portion, was \$5.80 billion, and the estimated fair value was \$6.29 billion. The estimated fair value is measured using broker-dealer quotes, which are Level 2 inputs. See Note 6 for a description of fair value and the definition of Level 2 inputs.

Risk concentration

We are subject to counterparty risks from financial institutions, customers and issuers of debt securities. Financial instruments that could subject us to concentrations of credit risk are primarily cash deposits, cash equivalents, short-term investments and accounts receivable. To manage our credit risk exposure, we place cash investments in investment-grade debt securities and limit the amount of credit exposure to any one issuer. We also limit counterparties on cash deposits and financial derivative contracts to financial institutions with investment-grade ratings.

Concentrations of credit risk with respect to accounts receivable are limited due to our large number of customers and their dispersion across different industries and geographic areas. We maintain allowances for expected returns, disputes, adjustments, incentives and collectability. These allowances are deducted from accounts receivable on our Consolidated Balance Sheets.

Accounts receivable allowances changed to reflect amounts charged (credited) to operating results by (\$11) million, \$11 million and (\$9) million in 2019, 2018 and 2017, respectively.

Major customer

No end customer accounted for 10% or more of revenue in 2019, 2018 or 2017.

6. Valuation of debt and equity investments and certain liabilities

Debt and equity investments measured at fair value

Available-for-sale debt investments and trading securities are stated at fair value, which is generally based on market prices or broker quotes. See *Fair-value considerations* below. Unrealized gains and losses from available-for-sale debt securities are recorded as an increase or decrease, net of taxes, in AOCI on our Consolidated Balance Sheets. Other-than-temporary impairments on available-for-sale debt securities are recorded in OI&E in our Consolidated Statements of Income.

We classify certain mutual funds as trading securities. These mutual funds hold a variety of debt and equity investments intended to generate returns that offset changes in certain deferred compensation liabilities. We record changes in the fair value of these mutual funds and the related deferred compensation liabilities in SG&A.

Other equity investments

Our other investments include equity-method investments and non-marketable equity investments, which are not measured at fair value. These investments consist of interests in venture capital funds and other non-marketable equity securities. Gains and losses from equity-method investments are recognized in OI&E based on our ownership share of the investee's financial results.

Non-marketable equity securities are measured at cost with adjustments for observable changes in price or impairments. Gains and losses on non-marketable equity investments are recognized in OI&E.

Details of our investments are as follows:

	December 31, 2019			December 31, 2018		
	Cash and Cash Equivalents	Short-Term Investments	Long-Term Investments	Cash and Cash Equivalents	Short-Term Investments	Long-Term Investments
Measured at fair value:						
Available-for-sale debt securities:						
Money market funds	\$ 1,213	\$ —	\$ —	\$ 747	\$ —	\$ —
Corporate obligations	174	1,216	—	473	748	—
U.S. government agency and Treasury securities	604	1,734	—	988	1,047	—
Trading securities:						
Mutual funds	—	—	272	—	—	226
Total	1,991	2,950	272	2,208	1,795	226
Other measurement basis:						
Equity-method investments	—	—	24	—	—	21
Non-marketable equity investments	—	—	4	—	—	4
Cash on hand	446	—	—	230	—	—
Total	\$ 2,437	\$ 2,950	\$ 300	\$ 2,438	\$ 1,795	\$ 251

As of December 31, 2019 and 2018, unrealized gains and losses associated with our available-for-sale investments were not material. We did not recognize any credit losses related to available-for-sale investments in 2019, 2018 or 2017.

In 2019, 2018 and 2017, the proceeds from sales, redemptions and maturities of short-term available-for-sale investments were \$2.31 billion, \$6.71 billion and \$4.10 billion, respectively. Gross realized gains and losses from these sales were not material.

The following table presents the aggregate maturities of our available-for-sale debt investments as of December 31, 2019:

	Fair Value
One year or less	\$ 4,921
One to two years	20

There were no other-than-temporary declines and impairments in the values of our debt investments in 2019, 2018 or 2017.

In 2019, 2018 and 2017, net gains and losses associated with our equity investments were \$32 million, \$5 million and \$4 million, respectively. These amounts include realized gains of \$29 million, \$11 million and \$6 million on equity investments sold during 2019, 2018 and 2017, respectively.

Fair-value considerations

We measure and report certain financial assets and liabilities at fair value on a recurring basis. Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date.

The three-level hierarchy described below indicates the extent and level of judgment used to estimate fair-value measurements.

- *Level 1* – Uses unadjusted quoted prices that are available in active markets for identical assets or liabilities as of the reporting date.
- *Level 2* – Uses inputs other than Level 1 that are either directly or indirectly observable as of the reporting date through correlation with market data, including quoted prices for similar assets and liabilities in active markets and quoted prices in markets that are not active. Level 2 also includes assets and liabilities that are valued using models or other pricing methodologies that do not require significant judgment since the input assumptions used in the models, such as interest rates and volatility factors, are corroborated by readily observable data. We utilize a third-party data service to provide Level 2 valuations. We verify these valuations for reasonableness relative to unadjusted quotes obtained from brokers or dealers based on observable prices for similar assets in active markets.
- *Level 3* – Uses inputs that are unobservable, supported by little or no market activity and reflect the use of significant management judgment. These values are generally determined using pricing models that utilize management estimates of market participant assumptions. As of December 31, 2019 and 2018, we had no Level 3 assets or liabilities.

The following are our assets and liabilities that were accounted for at fair value on a recurring basis. These tables do not include cash on hand, assets held by our postretirement plans, or assets and liabilities that are measured at historical cost or any basis other than fair value.

	December 31, 2019			December 31, 2018		
	Level 1	Level 2	Total	Level 1	Level 2	Total
Assets:						
Money market funds	\$ 1,213	\$ —	\$ 1,213	\$ 747	\$ —	\$ 747
Corporate obligations	—	1,390	1,390	—	1,221	1,221
U.S. government agency and Treasury securities	2,338	—	2,338	2,035	—	2,035
Mutual funds	272	—	272	226	—	226
Total assets	\$ 3,823	\$ 1,390	\$ 5,213	\$ 3,008	\$ 1,221	\$ 4,229
Liabilities:						
Deferred compensation	\$ 298	\$ —	\$ 298	\$ 246	\$ —	\$ 246
Total liabilities	\$ 298	\$ —	\$ 298	\$ 246	\$ —	\$ 246

7. Goodwill and acquisition-related intangibles

Goodwill by segment as of December 31, 2019 and 2018, is as follows:

	Goodwill
Analog	\$ 4,158
Embedded Processing	172
Other	32
Total	<u>\$ 4,362</u>

We perform our annual goodwill impairment test as of October 1 and determine whether the fair value of each of our reporting units is in excess of its carrying value. Determination of fair value is based upon management estimates and judgment, using unobservable inputs in discounted cash flow models to calculate the fair value of each reporting unit. These unobservable inputs are considered Level 3 measurements, as described in Note 6. In 2019, 2018 and 2017, we determined no impairment was indicated.

The components of acquisition-related intangibles are as follows:

	Amortization Period (Years)	December 31, 2019			December 31, 2018		
		Gross Carrying Amount	Accumulated Amortization	Net	Gross Carrying Amount	Accumulated Amortization	Net
Developed technology	7 – 10	\$ 2,000	\$ 1,660	\$ 340	\$ 2,125	\$ 1,573	\$ 552
Customer relationships	8	—	—	—	810	734	76
Total		\$ 2,000	\$ 1,660	\$ 340	\$ 2,935	\$ 2,307	\$ 628

Acquisition charges

Acquisition charges represent the ongoing amortization of intangible assets resulting from the acquisition of National Semiconductor Corporation. These amounts are included in Other for segment reporting purposes, consistent with how management measures the performance of its segments.

Amortization of acquisition-related intangibles was \$288 million in 2019 and \$318 million in 2018 and 2017. Fully amortized assets are written off against accumulated amortization. The remaining estimated amortization is \$198 million in 2020 and \$142 million in 2021.

8. Postretirement benefit plans

Plan descriptions

We have various employee retirement plans, including defined contribution, defined benefit and retiree health care benefit plans. For qualifying employees, we offer deferred compensation arrangements.

U.S. retirement plans

Our principal retirement plans in the United States are a defined contribution plan; an enhanced defined contribution plan; and qualified and non-qualified defined benefit pension plans. The defined benefit plans were closed to new participants in 1997, and then current participants were allowed to make a one-time election to continue accruing a benefit in the plans or to cease accruing a benefit and instead to participate in the enhanced defined contribution plan described below.

Both defined contribution plans offer an employer-matching savings option that allows employees to make pretax and post-tax contributions to various investment choices. Employees who elected to continue accruing a benefit in the qualified defined benefit pension plans may also participate in the defined contribution plan, where employer-matching contributions are provided for up to 2% of the employee's annual eligible earnings. Employees who elected not to continue accruing a benefit in the defined benefit pension plans, and employees hired after November 1997 and through December 31, 2003, may participate in the enhanced defined contribution plan. This plan provides for a fixed employer contribution of 2% of the employee's annual eligible earnings, plus an employer-matching contribution of up to 4% of the employee's annual eligible earnings. Employees hired after December 31, 2003, do not receive the fixed employer contribution of 2% of the employee's annual eligible earnings.

As of December 31, 2019 and 2018, as a result of employees' elections, TI's U.S. defined contribution plans held shares of TI common stock totaling 8 million shares and 9 million shares valued at \$988 million and \$821 million, respectively. Dividends paid on these shares in 2019 and 2018 were \$26 million and \$24 million, respectively. Effective April 1, 2016, the TI common stock fund was frozen to new contributions or transfers into the fund.

Our aggregate expense for the U.S. defined contribution plans was \$61 million in 2019, 2018 and 2017.

The defined benefit pension plans include employees still accruing benefits, as well as employees and participants who no longer accrue service-related benefits, but instead, may participate in the enhanced defined contribution plan. Benefits under the qualified defined benefit pension plan are determined using a formula based on years of service and the highest five consecutive years of compensation. We intend to contribute amounts to this plan to meet the minimum funding requirements of applicable local laws and regulations, plus such additional amounts as we deem appropriate. The non-qualified defined benefit plans are unfunded and closed to new participants.

U.S. retiree health care benefit plan

U.S. employees who meet eligibility requirements are offered medical coverage during retirement. We make a contribution toward the cost of those retiree medical benefits for certain retirees and their dependents. The contribution rates are based upon various factors, the most important of which are an employee's date of hire, date of retirement, years of service and eligibility for Medicare benefits. The balance of the cost is borne by the plan's participants. Employees hired after January 1, 2001, are responsible for the full cost of their medical benefits during retirement.

Non-U.S. retirement plans

We provide retirement coverage for non-U.S. employees, as required by local laws or to the extent we deem appropriate, through a number of defined benefit and defined contribution plans. Retirement benefits are generally based on an employee's years of service and compensation. Funding requirements are determined on an individual country and plan basis and are subject to local country practices and market circumstances.

As of December 31, 2019 and 2018, as a result of employees' elections, TI's non-U.S. defined contribution plans held TI common stock valued at \$28 million and \$23 million, respectively. Dividends paid on these shares of TI common stock in 2019 and 2018 were not material.

Effects on our Consolidated Statements of Income and Balance Sheets

Expense related to defined benefit and retiree health care benefit plans is as follows:

	U.S. Defined Benefit			U.S. Retiree Health Care			Non-U.S. Defined Benefit		
	2019	2018	2017	2019	2018	2017	2019	2018	2017
Service cost	\$ 18	\$ 19	\$ 22	\$ 3	\$ 5	\$ 5	\$ 31	\$ 36	\$ 37
Interest cost	38	35	42	14	15	17	43	45	44
Expected return on plan assets	(41)	(42)	(41)	(14)	(15)	(17)	(86)	(67)	(62)
Amortization of prior service cost (credit)	—	—	—	(1)	(3)	(4)	1	(1)	(2)
Recognized net actuarial loss	9	17	14	—	2	3	29	20	28
Net periodic benefit costs	24	29	37	2	4	4	18	33	45
Settlement losses	10	23	36	—	—	—	3	3	2
Total, including other postretirement losses	\$ 34	\$ 52	\$ 73	\$ 2	\$ 4	\$ 4	\$ 21	\$ 36	\$ 47

All defined benefit and retiree health care benefit plan expense components other than service cost are recognized in OI&E in our Consolidated Statements of Income. Service cost is recognized within operating profit.

For the U.S. qualified pension and retiree health care plans, the expected return on plan assets component of net periodic benefit cost is based upon a market-related value of assets. In accordance with U.S. GAAP, the market-related value of assets is the fair value adjusted by a smoothing technique whereby certain gains and losses are phased in over a period of three years.

Changes in the benefit obligations and plan assets for defined benefit and retiree health care benefit plans are as follows:

	U.S. Defined Benefit		U.S. Retiree Health Care		Non-U.S. Defined Benefit	
	2019	2018	2019	2018	2019	2018
Change in plan benefit obligation						
Benefit obligation at beginning of year:	\$ 874	\$ 998	\$ 361	\$ 414	\$ 2,411	\$ 2,469
Service cost	18	19	3	5	31	36
Interest cost	38	35	14	15	43	45
Participant contributions	—	—	13	11	7	7
Benefits paid	(11)	(10)	(41)	(41)	(103)	(87)
Settlements	(66)	(100)	—	—	(12)	(16)
Curtailments	—	—	—	—	(1)	—
Actuarial loss (gain)	107	(68)	9	(43)	193	6
Plan amendments	—	—	—	—	—	7
Effects of exchange rate changes	—	—	—	—	12	(56)
Benefit obligation at end of year	\$ 960	\$ 874	\$ 359	\$ 361	\$ 2,581	\$ 2,411
Change in plan assets						
Fair value of plan assets at beginning of year:	\$ 869	\$ 995	\$ 330	\$ 394	\$ 2,410	\$ 2,593
Actual return on plan assets	185	(56)	53	(12)	337	(52)
Employer contributions (qualified plans)	—	20	1	1	9	19
Employer contributions (non-qualified plans)	10	20	—	—	—	—
Participant contributions	—	—	13	11	7	7
Benefits paid	(11)	(10)	(41)	(41)	(103)	(87)
Settlements	(66)	(100)	—	—	(12)	(16)
Effects of exchange rate changes	—	—	—	—	13	(54)
Other	—	—	—	(23)	—	—
Fair value of plan assets at end of year	\$ 987	\$ 869	\$ 356	\$ 330	\$ 2,661	\$ 2,410
Funded status at end of year	\$ 27	\$ (5)	\$ (3)	\$ (31)	\$ 80	\$ (1)

The actuarial loss (gain) for all pension plans was primarily related to a change in the discount rate used to measure the benefit obligations of those plans in 2019 and 2018.

Amounts recognized on our Consolidated Balance Sheets as of December 31, are as follows:

	U.S. Defined Benefit	U.S. Retiree Health Care	Non-U.S. Defined Benefit	Total
2019				
Overfunded retirement plans	\$ 73	\$ —	\$ 145	\$ 218
Accrued expenses and other liabilities & other long-term liabilities	(17)	—	(4)	(21)
Underfunded retirement plans	(29)	(3)	(61)	(93)
Funded status at end of 2019	\$ 27	\$ (3)	\$ 80	\$ 104
2018				
Overfunded retirement plans	\$ 40	\$ —	\$ 52	\$ 92
Accrued expenses and other liabilities & other long-term liabilities	(8)	—	(3)	(11)
Underfunded retirement plans	(37)	(31)	(50)	(118)
Funded status at end of 2018	\$ (5)	\$ (31)	\$ (1)	\$ (37)

Contributions to the plans meet or exceed all minimum funding requirements. We expect to contribute about \$20 million to our retirement benefit plans in 2020.

Accumulated benefit obligations, which are generally less than the projected benefit obligations as they exclude the impact of future salary increases, were \$878 million and \$793 million as of December 31, 2019 and 2018, respectively, for the U.S. defined benefit plans, and \$2.46 billion and \$2.29 billion as of December 31, 2019 and 2018, respectively, for the non-U.S. defined benefit plans.

The change in AOCI is as follows:

	U.S. Defined Benefit	U.S. Retiree Health Care		Non-U.S. Defined Benefit		Total	
	Net Actuarial Loss	Net Actuarial Loss	Prior Service Credit	Net Actuarial Loss	Prior Service Credit	Net Actuarial Loss	Prior Service Credit
AOCI balance, net of taxes, December 31, 2018	\$ 135	\$ 21	\$ (5)	\$ 317	\$ 3	\$ 473	\$ (2)
Changes in AOCI by category:							
Adjustments	(36)	(31)	—	(58)	—	(125)	—
Recognized within net income	(19)	—	1	(32)	(1)	(51)	—
Tax effect	11	7	—	32	—	50	—
Total change to AOCI	(44)	(24)	1	(58)	(1)	(126)	—
AOCI balance, net of taxes, December 31, 2019	\$ 91	\$ (3)	\$ (4)	\$ 259	\$ 2	\$ 347	\$ (2)

Information on plan assets

We report and measure the plan assets of our defined benefit pension and other postretirement plans at fair value. The tables below set forth the fair value of our plan assets using the same three-level hierarchy of fair-value inputs described in Note 6.

	December 31, 2019			
	Level 1	Level 2	Other (a)	Total
Assets of U.S. defined benefit plan:				
Fixed income securities and cash equivalents	\$ —	\$ —	\$ 640	\$ 640
Equity securities	—	—	347	347
Total	\$ —	\$ —	\$ 987	\$ 987
Assets of U.S. retiree health care plan:				
Fixed income securities and cash equivalents	\$ 62	\$ —	\$ 168	\$ 230
Equity securities	—	—	126	126
Total	\$ 62	\$ —	\$ 294	\$ 356
Assets of non-U.S. defined benefit plans:				
Fixed income securities and cash equivalents	\$ 59	\$ 126	\$ 1,762	\$ 1,947
Equity securities	41	2	671	714
Total	\$ 100	\$ 128	\$ 2,433	\$ 2,661

(a) Consists of bond index and equity index funds, measured at net asset value per share, as well as cash equivalents.

	December 31, 2018			
	Level 1	Level 2	Other (a)	Total
Assets of U.S. defined benefit plan:				
Fixed income securities and cash equivalents	\$ —	\$ —	\$ 563	\$ 563
Equity securities	—	—	306	306
Total	\$ —	\$ —	\$ 869	\$ 869
Assets of U.S. retiree health care plan:				
Fixed income securities and cash equivalents	\$ 59	\$ —	\$ 155	\$ 214
Equity securities	—	—	116	116
Total	\$ 59	\$ —	\$ 271	\$ 330
Assets of non-U.S. defined benefit plans:				
Fixed income securities and cash equivalents	\$ 47	\$ 139	\$ 1,602	\$ 1,788
Equity securities	33	1	588	622
Total	\$ 80	\$ 140	\$ 2,190	\$ 2,410

(a) Consists of bond index and equity index funds, measured at net asset value per share, as well as cash equivalents.

The investments in our major benefit plans largely consist of low-cost, broad-market index funds to mitigate risks of concentration within market sectors. Our investment policy is designed to better match the interest rate sensitivity of the plan assets and liabilities. The appropriate mix of equity and bond investments is determined primarily through the use of detailed asset-liability modeling studies that look to balance the impact of changes in the discount rate against the need to provide asset growth to cover future service cost. Most of our plans around the world have a greater proportion of fixed income securities with return characteristics that are more closely aligned with changes in the liabilities caused by discount rate volatility.

Assumptions and investment policies

	U.S. Defined Benefit		U.S. Retiree Health Care		Non-U.S. Defined Benefit	
	2019	2018	2019	2018	2019	2018
Weighted average assumptions used to determine benefit obligations:						
Discount rate	3.62%	4.37%	3.63%	4.30%	1.46%	1.85%
Long-term pay progression	3.30%	3.30%	n/a	n/a	3.06%	2.96%
Weighted average assumptions used to determine net periodic benefit cost:						
Discount rate	4.35%	3.77%	4.30%	3.63%	1.85%	1.84%
Long-term rate of return on plan assets	4.90%	4.80%	4.40%	4.10%	3.62%	2.58%
Long-term pay progression	3.30%	3.30%	n/a	n/a	3.03%	2.96%

We utilize a variety of methods to select an appropriate discount rate depending on the depth of the corporate bond market in the country in which the benefit plan operates. In the United States, we use a settlement approach whereby a portfolio of bonds is selected from the universe of actively traded high-quality U.S. corporate bonds. The selected portfolio is designed to provide cash flows sufficient to pay the plan's expected benefit payments when due. The resulting discount rate reflects the rate of return of the selected portfolio of bonds. For our non-U.S. locations with a sufficient number of actively traded high-quality bonds, an analysis is performed in which the projected cash flows from the defined benefit plans are discounted against a yield curve constructed with an appropriate universe of high-quality corporate bonds available in each country. In this manner, a present value is developed. The discount rate selected is the single equivalent rate that produces the same present value. For countries that lack a sufficient corporate bond market, a government bond index adjusted for an appropriate risk premium is used to establish the discount rate.

Assumptions for the expected long-term rate of return on plan assets are based on future expectations for returns for each asset class and the effect of periodic target asset allocation rebalancing. We adjust the results for the payment of reasonable expenses of the plan from plan assets. We believe our assumptions are appropriate based on the investment mix and long-term nature of the plans' investments. Assumptions used for the non-U.S. defined benefit plans reflect the different economic environments within the various countries.

The target allocation ranges for the plans that hold a substantial majority of the defined benefit assets are as follows:

	U.S. Defined Benefit	U.S. Retiree Health Care	Non-U.S. Defined Benefit
Fixed income securities and cash equivalents	65%	65%	60% – 100%
Equity securities	35%	35%	0% – 40%

We rebalance the plans' investments when they are outside the target allocation ranges.

Weighted average asset allocations as of December 31 are as follows:

	U.S. Defined Benefit		U.S. Retiree Health Care		Non-U.S. Defined Benefit	
	2019	2018	2019	2018	2019	2018
Fixed income securities and cash equivalents	65%	65%	65%	65%	73%	74%
Equity securities	35%	35%	35%	35%	27%	26%

None of the plan assets related to the defined benefit pension plans and retiree health care benefit plan are directly invested in TI common stock.

The following assumed future benefit payments to plan participants in the next 10 years are used to measure our benefit obligations. Almost all of the payments, which may vary significantly from these assumptions, will be made from plan assets and not from company assets.

	2020	2021	2022	2023	2024	2025 – 2029
U.S. Defined Benefit	\$ 99	\$ 118	\$ 85	\$ 90	\$ 87	\$ 441
U.S. Retiree Health Care	32	30	29	27	26	115
Non-U.S. Defined Benefit	95	96	99	100	104	542

Assumed health care cost trend rates for the U.S. retiree health care benefit plan as of December 31 are as follows:

	2019	2018
Assumed health care cost trend rate for next year	7.00%	7.25%
Ultimate trend rate	5.00%	5.00%
Year in which ultimate trend rate is reached	2028	2028

Deferred compensation plans

We have deferred compensation plans that allow U.S. employees whose base salary and management responsibility exceed a certain level to defer receipt of a portion of their cash compensation. Payments under these plans are made based on the participant's distribution election and plan balance. Participants can earn a return on their deferred compensation based on notional investments in the same investment funds that are offered in our defined contribution plans.

As of December 31, 2019, our liability to participants of the deferred compensation plans was \$298 million and is recorded in other long-term liabilities on our Consolidated Balance Sheets. This amount reflects the accumulated participant deferrals and earnings thereon as of that date. As of December 31, 2019, we held \$272 million in mutual funds related to these plans that are recorded in long-term investments on our Consolidated Balance Sheets, and serve as an economic hedge against changes in fair values of our other deferred compensation liabilities. We record changes in the fair value of the liability and the related investment in SG&A as discussed in Note 6.

9. Debt and lines of credit

Short-term borrowings

We maintain a line of credit to support commercial paper borrowings, if any, and to provide additional liquidity through bank loans. As of December 31, 2019, we had a variable-rate revolving credit facility from a consortium of investment-grade banks that allows us to borrow up to \$2 billion until March 2024. The interest rate on borrowings under this credit facility, if drawn, is indexed to the applicable London Interbank Offered Rate (LIBOR). As of December 31, 2019, our credit facility was undrawn, and we had no commercial paper outstanding.

Long-term debt

We retired \$750 million of maturing debt in August 2019.

In March 2019, we issued a principal amount of \$750 million of fixed-rate, long-term debt due in 2039. We incurred \$7 million of issuance and other related costs. The proceeds of the offering were \$743 million, net of the original issuance discount, and were used for general corporate purposes.

In September 2019, we issued a principal amount of \$750 million of fixed-rate, long-term debt due in 2029. We incurred \$5 million of issuance and other related costs. The proceeds of the offering were \$748 million, net of the original issuance discount, and were used for general corporate purposes.

We retired \$500 million of maturing debt in May 2018.

In the second quarter of 2018, we issued an aggregate principal amount of \$1.5 billion of fixed-rate, long-term debt due in 2048, comprised of the issuance of \$1.3 billion in May 2018 and an additional \$200 million in June 2018. We incurred \$16 million of issuance and other related costs. The proceeds of the offering were \$1.5 billion, net of the original issuance discount and premium, and were used for general corporate purposes.

We retired \$250 million of maturing debt in March 2017 and another \$375 million in June 2017.

In May 2017, we issued an aggregate principal amount of \$600 million of fixed-rate, long-term debt. The offering consisted of the reissuance of \$300 million of 2.75% notes due in 2021 at a premium and the issuance of \$300 million of 2.625% notes due in 2024 at a discount. We incurred \$3 million of issuance and other related costs. The proceeds of the offerings were \$605 million, net of the original issuance discount and premium, and were used for the repayment of maturing debt and general corporate purposes.

In November 2017, we issued a principal amount of \$500 million of fixed-rate, long-term debt due in 2027. We incurred \$3 million of issuance and other related costs. The proceeds of the offering were \$494 million, net of the original issuance discount, and were used for general corporate purposes.

Long-term debt outstanding is as follows:

	December 31,	
	2019	2018
Notes due 2019 at 1.65%	\$ —	\$ 750
Notes due 2020 at 1.75%	500	500
Notes due 2021 at 2.75%	550	550
Notes due 2022 at 1.85%	500	500
Notes due 2023 at 2.25%	500	500
Notes due 2024 at 2.625%	300	300
Notes due 2027 at 2.90%	500	500
Notes due 2029 at 2.25%	750	—
Notes due 2039 at 3.875%	750	—
Notes due 2048 at 4.15%	1,500	1,500
Total debt	5,850	5,100
Net unamortized discounts, premiums and issuance costs	(47)	(32)
Total debt, including net unamortized discounts, premiums and issuance costs	5,803	5,068
Current portion of long-term debt	(500)	(749)
Long-term debt	<u>\$ 5,303</u>	<u>\$ 4,319</u>

Interest and debt expense was \$170 million, \$125 million and \$78 million in 2019, 2018 and 2017, respectively. This was net of the amortized discounts, premiums and issuance costs. Cash payments for interest on long-term debt were \$156 million, \$114 million and \$75 million in 2019, 2018 and 2017, respectively. Capitalized interest was not material.

10. Leases

We conduct certain operations in leased facilities and also lease a portion of our data processing and other equipment. In addition, certain long-term supply agreements to purchase industrial gases are accounted for as operating leases. Lease agreements frequently include renewal provisions and require us to pay real estate taxes, insurance and maintenance costs.

Our leases are included as a component of the following balance sheet lines:

	December 31, 2019
Other long-term assets	\$ 337
Accrued expenses and other liabilities	\$ 73
Other long-term liabilities	259

Details of our operating leases are as follows:

	For Year Ended December 31, 2019
Lease cost related to lease liabilities	\$ 66
Variable lease cost	41
Cash paid for amounts included in the measurement of lease liabilities:	
Operating cash flows for lease cost	\$ 60
Lease assets obtained in exchange for new lease liabilities	\$ 167
Weighted average remaining lease term	8.2 years
Weighted average discount rate	3.37%

As of December 31, 2019, we had committed to make the following minimum payments under our non-cancellable operating leases:

	2020	2021	2022	2023	2024	Thereafter	Total
Lease payments	\$ 75	\$ 63	\$ 51	\$ 38	\$ 28	\$ 131	\$ 386
Imputed lease interest							(54)
Total lease liabilities							<u>\$ 332</u>

As of December 31, 2018, we had committed to make the following minimum payments under our non-cancellable operating leases, as reported under ASC 840:

	2019	2020	2021	2022	2023	Thereafter	Total
Operating leases	\$ 56	\$ 46	\$ 36	\$ 29	\$ 18	\$ 39	\$ 224

11. Commitments and contingencies

Purchase commitments

Our purchase commitments include payments for software licenses and contractual arrangements with suppliers when there is a fixed, non-cancellable payment schedule or when minimum payments are due with a reduced delivery schedule.

As of December 31, 2019, we had committed to make the following minimum payments under our purchase commitments:

	2020	2021	2022	2023	2024	Thereafter	Total
Purchase commitments	\$ 452	\$ 286	\$ 121	\$ 70	\$ 27	\$ 109	\$ 1,065

Indemnification guarantees

We routinely sell products with an intellectual property indemnification included in the terms of sale. Historically, we have had only minimal, infrequent losses associated with these indemnities. Consequently, we cannot reasonably estimate any future liabilities that may result.

Warranty costs/product liabilities

We accrue for known product-related claims if a loss is probable and can be reasonably estimated. During the periods presented, there have been no material accruals or payments regarding product warranty or product liability. Historically, we have experienced a low rate of payments on product claims. Although we cannot predict the likelihood or amount of any future claims, we do not believe they will have a material adverse effect on our financial condition, results of operations or liquidity. Our stated warranties for semiconductor products obligate us to repair, replace or credit the purchase price of a covered product back to the buyer. Product claim consideration may exceed the price of our products.

General

We are subject to various legal and administrative proceedings. Although it is not possible to predict the outcome of these matters, we believe that the results of these proceedings will not have a material adverse effect on our financial condition, results of operations or liquidity.

12. Supplemental financial information

Restructuring charges/other

Restructuring charges/other are included in Other for segment reporting purposes and are comprised of the following components:

	For Years Ended December 31,		
	2019	2018	2017
Restructuring charges (a)	\$ (15)	\$ 6	\$ 11
Gains on sales of assets	(21)	(3)	—
Restructuring charges/other	<u>\$ (36)</u>	<u>\$ 3</u>	<u>\$ 11</u>

(a) Includes severance and benefits, accelerated depreciation, changes in estimates or other exit costs.

Changes in accrued restructuring balances

	2019	2018	2017
Balance, January 1	\$ 28	\$ 29	\$ 40
Restructuring charges	(15)	6	11
Non-cash items (a)	—	(3)	(1)
Payments	(13)	(4)	(21)
Balance, December 31	<u>\$ —</u>	<u>\$ 28</u>	<u>\$ 29</u>

(a) Reflects charges for impacts of accelerated depreciation and changes in exchange rates.

The restructuring accrual balances are reported as a component of either accrued expenses and other liabilities or other long-term liabilities on our Consolidated Balance Sheets, depending on the expected timing of payment.

In April 2019, we sold our manufacturing facility in Greenock, Scotland.

In January 2020, we announced a multiyear plan to close our two remaining factories with 150-millimeter production, which are more than 50 years old and located in Sherman and Dallas, Texas. Production will be transitioned from these sites to our more advanced and cost-effective 300-millimeter wafer fabrication facilities in North Texas. We expect this transition to be completed in the next three to five years. Charges for these closures cannot be reasonably estimated until a later phase of the transition.

Other income (expense), net (OI&E)

	For Years Ended December 31,		
	2019	2018	2017
Other income (a)	\$ 197	\$ 150	\$ 163
Other expense (b)	(22)	(52)	(88)
Total	<u>\$ 175</u>	<u>\$ 98</u>	<u>\$ 75</u>

(a) Other income includes interest, royalty and lease income, as well as investment gains and losses.

(b) Other expense includes a portion of pension and other retiree benefit costs. It also includes currency gains and losses, tax interest and miscellaneous items.

Property, plant and equipment at cost

	Depreciable Lives (Years)	December 31,	
		2019	2018
Land	n/a	\$ 126	\$ 128
Buildings and improvements	5 – 40	2,504	2,497
Machinery and equipment	2 – 10	3,110	2,800
Total		<u>\$ 5,740</u>	<u>\$ 5,425</u>

Other long-term liabilities

	December 31,	
	2019	2018
Long-term portion of transition tax on indefinitely reinvested earnings	\$ 506	\$ 506
Uncertain tax positions	303	286
Deferred compensation plans	298	246
Operating lease liabilities	259	—
Other	148	152
Total	<u>\$ 1,514</u>	<u>\$ 1,190</u>

Accumulated other comprehensive income (loss), net of taxes (AOCI)

	December 31,	
	2019	2018
Postretirement benefit plans:		
Net actuarial loss	\$ (347)	\$ (473)
Prior service credit	2	2
Cash flow hedge derivative instruments	(2)	(2)
Total	<u>\$ (347)</u>	<u>\$ (473)</u>

Details on amounts reclassified out of accumulated other comprehensive income (loss), net of taxes, to net income

Our Consolidated Statements of Comprehensive Income include items that have been recognized within net income in 2019, 2018 and 2017. The table below details where these transactions are recorded in our Consolidated Statements of Income.

	For Years Ended December 31,			Impact to Related Statement of Income Lines
	2019	2018	2017	
Net actuarial losses of defined benefit plans:				
Recognized net actuarial loss and settlement losses (a) . .	\$ 51	\$ 65	\$ 83	Decrease to OI&E
Tax effect	(13)	(15)	(27)	Decrease to provision for income taxes
Recognized within net income, net of taxes	<u>\$ 38</u>	<u>\$ 50</u>	<u>\$ 56</u>	Decrease to net income
Prior service credit of defined benefit plans:				
Amortization of prior service credit (a)	\$ —	\$ (4)	\$ (6)	Increase to OI&E
Tax effect	—	1	1	Increase to provision for income taxes
Recognized within net income, net of taxes	<u>\$ —</u>	<u>\$ (3)</u>	<u>\$ (5)</u>	Increase to net income
Derivative instruments:				
Amortization of treasury-rate locks	\$ —	\$ —	\$ 1	Increase to interest and debt expense
Tax effect	—	—	—	Decrease to provision for income taxes
Recognized within net income, net of taxes	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 1</u>	Decrease to net income

(a) Detailed in Note 8.

13. Quarterly financial data (unaudited)

	2019 Quarters				2018 Quarters			
	4th	3rd	2nd	1st	4th	3rd	2nd	1st
Revenue	\$ 3,350	\$ 3,771	\$ 3,668	\$ 3,594	\$ 3,717	\$ 4,261	\$ 4,017	\$ 3,789
Gross profit	2,097	2,446	2,360	2,261	2,407	2,804	2,619	2,447
Included in operating profit:								
Acquisition charges	50	79	80	79	79	80	79	80
Restructuring charges/other	—	—	(36)	—	(2)	1	3	1
Operating profit	1,249	1,589	1,506	1,379	1,516	1,937	1,712	1,548
Net income	1,070	1,425	1,305	1,217	1,239	1,570	1,405	1,366
Basic EPS	\$ 1.14	\$ 1.51	\$ 1.38	\$ 1.29	\$ 1.29	\$ 1.61	\$ 1.43	\$ 1.38
Diluted EPS	\$ 1.12	\$ 1.49	\$ 1.36	\$ 1.26	\$ 1.27	\$ 1.58	\$ 1.40	\$ 1.35

Report of independent registered public accounting firm

To the Shareholders and the Board of Directors of Texas Instruments Incorporated

Opinion on the financial statements

We have audited the accompanying consolidated balance sheets of Texas Instruments Incorporated (the Company) as of December 31, 2019 and 2018, the related consolidated statements of income, comprehensive income, shareholders' equity and cash flows for each of the three years in the period ended December 31, 2019, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2019, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2019, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated February 20, 2020 expressed an unqualified opinion thereon.

Basis for opinion

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

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

Critical audit matter

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

Uncertain tax positions

Description of the matter

As discussed in Note 4 to the consolidated financial statements, the Company operates in the United States and multiple international tax jurisdictions, and its income tax returns are subject to examination by tax authorities in those jurisdictions who may challenge any tax position on these returns. Uncertainty in a tax position may arise because tax laws are subject to interpretation. The Company uses significant judgment to (1) determine whether, based on the technical merits, a tax position is more likely than not to be sustained and (2) measure the amount of tax benefit that qualifies for recognition. Auditing management's estimate of the amount of tax benefit that qualifies for recognition involved auditor judgment because management's estimate is complex, requires a high degree of judgment and is based on interpretations of tax laws and legal rulings.

How we addressed the matter in our audit

We obtained an understanding, evaluated the design, and tested the operating effectiveness of controls over the Company's accounting process for uncertain tax positions. For example, this included controls over the Company's assessment of the technical merits of tax positions and management's process to measure the benefit of those tax positions. Among other procedures performed, we involved our tax professionals to assess the technical merits of the Company's tax positions. This included assessing the Company's correspondence with the relevant tax authorities and evaluating income tax opinions or other third-party advice obtained by the Company. We also evaluated the appropriateness of the Company's accounting for its tax positions taking into consideration relevant international and local income tax laws and legal rulings. We analyzed the Company's assumptions and data used to determine the amount of tax benefit to recognize and tested the accuracy of the calculations. We also evaluated the adequacy of the Company's financial statement disclosures in Note 4 to the consolidated financial statements related to these tax matters.

Ernst & Young LLP

We have served as the Company's auditor since 1952.
Dallas, Texas
February 20, 2020

ITEM 9. Changes in and disagreements with accountants on accounting and financial disclosure

Not applicable.

ITEM 9A. Controls and procedures

Disclosure controls and procedures

An evaluation as of the end of the period covered by this report was carried out under the supervision and with the participation of management, including our Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934). Based upon that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that those disclosure controls and procedures were effective.

Internal control over financial reporting

Report by management on internal control over financial reporting

The management of TI is responsible for establishing and maintaining effective internal control over financial reporting. TI's internal control system was designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation and fair presentation of financial statements issued for external purposes in accordance with generally accepted accounting principles. There has been no change in our internal control over financial reporting (as defined in Rule 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934) that occurred during the fourth quarter of 2019 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

All internal control systems, no matter how well designed, have inherent limitations and may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

TI management assessed the effectiveness of internal control over financial reporting as of December 31, 2019. In making this assessment, we used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria) in Internal Control – Integrated Framework. Based on our assessment, we believe that, as of December 31, 2019, our internal control over financial reporting is effective based on the COSO criteria.

TI's independent registered public accounting firm, Ernst & Young LLP, has issued an audit report on the effectiveness of our internal control over financial reporting, which immediately follows this report.

Report of independent registered public accounting firm on internal control over financial reporting

To the Shareholders and the Board of Directors of Texas Instruments Incorporated

Opinion on internal control over financial reporting

We have audited Texas Instruments Incorporated's internal control over financial reporting as of December 31, 2019, based on criteria established in Internal Control – Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, Texas Instruments Incorporated (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2019 and 2018, the related consolidated statements of income, comprehensive income, shareholders' equity and cash flows for each of the three years in the period ended December 31, 2019, and the related notes, and our report dated February 20, 2020 expressed an unqualified opinion thereon.

Basis for opinion

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

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

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

Definition and limitations of internal control over financial reporting

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

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

Ernst & Young LLP

Dallas, Texas
February 20, 2020

ITEM 9B. Other information

Not applicable.

PART III**ITEM 10. Directors, executive officers and corporate governance**

The information with respect to directors' names, ages, positions, term of office, periods of service and business experience, which is contained under the caption "Election of directors" in our proxy statement for the 2020 annual meeting of stockholders, is incorporated herein by reference to such proxy statement.

A list of our executive officers and their biographical information appears in Part I, Item 1 of this report.

Code of ethics

We have adopted the Code of Ethics for TI Chief Executive Officer and Senior Finance Officers. A copy of the Code can be found on our website at www.ti.com/corporategovernance. We intend to satisfy the disclosure requirements of the SEC regarding amendments to, or waivers from, the Code by posting such information on the same website.

Audit committee

The information contained under the caption "Committees of the board" with respect to the audit committee and the audit committee financial expert in our proxy statement for the 2020 annual meeting of stockholders is incorporated herein by reference to such proxy statement.

ITEM 11. Executive compensation

The information contained under the captions "Director compensation" and "Executive compensation" in our proxy statement for the 2020 annual meeting of stockholders is incorporated herein by reference to such proxy statement, provided that the Compensation Committee report shall not be deemed filed with this Form 10-K.

The information contained under the caption "Compensation committee interlocks and insider participation" in our proxy statement for the 2020 annual meeting of stockholders is incorporated herein by reference to such proxy statement.

ITEM 12. Security ownership of certain beneficial owners and management and related stockholder matters

Equity compensation plan information

The following table sets forth information about the company's equity compensation plans as of December 31, 2019.

Plan Category	Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights (1)	Weighted-Average Exercise Price of Outstanding Options, Warrants and Rights (2)	Number of Securities Remaining Available for Future Issuance under Equity Compensation Plans (excluding securities reflected in column (1)) (3)
Equity compensation plans approved by security holders	38,656,075 (a)	\$ 66.80 (b)	78,894,707 (c)
Equity compensation plans not approved by security holders	—	\$ —	—
Total	38,656,075 (d)	\$ 66.80	78,894,707

- (a) Includes shares of TI common stock to be issued under the Texas Instruments 2003 Director Compensation Plan, the Texas Instruments 2009 Long-Term Incentive Plan (the "2009 LTIP") and predecessor stockholder-approved plans, the Texas Instruments 2009 Director Compensation Plan, the TI Employees 2014 Stock Purchase Plan (the "2014 ESPP") and the Texas Instruments 2018 Director Compensation Plan (the "2018 Director Plan").
- (b) Restricted stock units and stock units credited to directors' deferred compensation accounts are settled in shares of TI common stock on a one-for-one basis. Accordingly, such units have been excluded for purposes of computing the weighted-average exercise price.
- (c) Shares of TI common stock available for future issuance under the 2009 LTIP, the 2014 ESPP and the 2018 Director Plan. 43,155,445 shares remain available for future issuance under the 2009 LTIP and 1,926,980 shares remain available for future issuance under the 2018 Director Plan. Under the 2009 LTIP and the 2018 Director Plan, awards may be granted in the form of restricted stock units, options or other stock-based awards such as restricted stock.
- (d) Includes 32,493,944 shares for issuance upon exercise of outstanding grants of options, 5,897,800 shares for issuance upon vesting of outstanding grants of restricted stock units, 173,849 shares for issuance under the 2014 ESPP and 90,482 shares for issuance in settlement of directors' deferred compensation accounts.

Security ownership of certain beneficial owners and management

The information that is contained under the captions "Security ownership of certain beneficial owners" and "Security ownership of directors and management" in our proxy statement for the 2020 annual meeting of stockholders is incorporated herein by reference to such proxy statement.

ITEM 13. Certain relationships and related transactions, and director independence

The information contained under the captions "Related person transactions" and "Director independence" in our proxy statement for the 2020 annual meeting of stockholders is incorporated herein by reference to such proxy statement.

ITEM 14. Principal accountant fees and services

The information with respect to principal accountant fees and services contained under the caption "Proposal to ratify appointment of independent registered public accounting firm" in our proxy statement for the 2020 annual meeting of stockholders is incorporated herein by reference to such proxy statement.

PART IV

ITEM 15. Exhibits, financial statement schedules

The financial statements are listed in the index included in Item 8, “Financial statements and supplementary data.”

Designation of Exhibit	Description of Exhibit	Incorporated by Reference				Filed or Furnished Herewith
		Form	File Number	Date of Filing	Exhibit Number	
3(a)	Restated Certificate of Incorporation of the Registrant, dated April 18, 1985, as amended	10-K	001-3761	February 24, 2015	3(a)	
3(b)	By-Laws of the Registrant	8-K	001-3761	December 12, 2016	3	
4(a)	Indenture	8-K	001-3761	May 23, 2011	4.2	
4(b)	Officer’s Certificate	8-K	001-3761	May 8, 2013	4.2	
4(c)	Officer’s Certificate	8-K	001-3761	March 12, 2014	4.2	
4(d)	Officer’s Certificate	8-K	001-3761	May 6, 2015	4.1	
4(e)	Officer’s Certificate	8-K	001-3761	May 6, 2016	4.1	
4(f)	Officer’s Certificate	8-K	001-3761	May 4, 2017	4.1	
4(g)	Officer’s Certificate	8-K	001-3761	November 3, 2017	4.1	
4(h)	Officer’s Certificate	8-K	001-3761	May 7, 2018	4.1	
4(i)	Officer’s Certificate	8-K	001-3761	June 8, 2018	4.1	
4(j)	Officer’s Certificate	8-K	001-3761	March 11, 2019	4.1	
4(k)	Officer’s Certificate	8-K	001-3761	September 4, 2019	4.1	
4(l)	Description of Securities					X
10(a)	TI Deferred Compensation Plan, as amended *	10-K	001-3761	February 24, 2016	10(a)	
10(b)	TI Employees Non-Qualified Pension Plan, effective January 1, 2009, as amended *	10-K	001-3761	February 24, 2016	10(b)	
10(c)	TI Employees Non-Qualified Pension Plan II *	10-K	001-3761	February 24, 2016	10(c)	
10(d)	Texas Instruments Long-Term Incentive Plan, adopted April 15, 1993 *	10-K	001-3761	February 24, 2012	10(c)	
10(e)	Texas Instruments 2000 Long-Term Incentive Plan as amended October 16, 2008 *	10-K	001-3761	February 24, 2015	10(e)	
10(f)	Texas Instruments 2003 Director Compensation Plan as amended January 19, 2012	10-K	001-3761	February 24, 2015	10(j)	
10(g)	Form of Non-Qualified Stock Option Agreement for Executive Officers under the Texas Instruments 2009 Long-Term Incentive Plan *	10-K	001-3761	February 23, 2017	10(k)	
10(h)	Form of Restricted Stock Unit Award Agreement for Executive Officers under the Texas Instruments 2009 Long-Term Incentive Plan *	10-K	001-3761	February 23, 2017	10(l)	

Designation of Exhibit	Description of Exhibit	Incorporated by Reference				Filed or Furnished Herewith
		Form	File Number	Date of Filing	Exhibit Number	
10(i)	Texas Instruments 2009 Long-Term Incentive Plan as amended April 21, 2016 *	DEF 14A	001-3761	March 9, 2016	Appendix B	
10(j)	Texas Instruments 2009 Director Compensation Plan as amended January 19, 2012	10-K	001-3761	February 23, 2017	10(n)	
10(k)	Texas Instruments 2018 Director Compensation Plan as amended December 5, 2019					X
21	List of Subsidiaries of the Registrant					X
23	Consent of Independent Registered Public Accounting Firm					X
31(a)	Rule 13a-14(a)/15(d)-14(a) Certification of Chief Executive Officer					X
31(b)	Rule 13a-14(a)/15(d)-14(a) Certification of Chief Financial Officer					X
32(a)	Section 1350 Certification of Chief Executive Officer					X
32(b)	Section 1350 Certification of Chief Financial Officer					X
101.ins	Instance Document					X
101.sch	XBRL Taxonomy Schema					X
101.cal	XBRL Taxonomy Calculation Linkbase					X
101.def	XBRL Taxonomy Definitions Document					X
101.lab	XBRL Taxonomy Labels Linkbase					X
101.pre	XBRL Taxonomy Presentation Linkbase					X
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)					X

* Management compensation plans and arrangements

Notice regarding forward-looking statements

This report includes forward-looking statements intended to qualify for the safe harbor from liability established by the Private Securities Litigation Reform Act of 1995. These forward-looking statements generally can be identified by phrases such as TI or its management “believes,” “expects,” “anticipates,” “foresees,” “forecasts,” “estimates” or other words or phrases of similar import. Similarly, statements herein that describe TI’s business strategy, outlook, objectives, plans, intentions or goals also are forward-looking statements. All such forward-looking statements are subject to certain risks and uncertainties that could cause actual results to differ materially from those in forward-looking statements.

We urge you to carefully consider the following important factors that could cause actual results to differ materially from the expectations of TI or our management:

- Economic, social and political conditions, and natural events in the countries in which we, our customers or our suppliers operate, including global trade policies;
- Market demand for semiconductors, particularly in the industrial and automotive markets, and customer demand that differs from forecasts;
- Our ability to compete in products and prices in an intensely competitive industry;
- Evolving cybersecurity and other threats relating to our information technology systems or those of our customers or suppliers;
- Our ability to successfully implement and realize opportunities from strategic, business and organizational changes, or our ability to realize our expectations regarding the amount and timing of restructuring charges and associated cost savings;
- Our ability to develop, manufacture and market innovative products in a rapidly changing technological environment, and our timely implementation of new manufacturing technologies and installation of manufacturing equipment;
- Availability and cost of raw materials, utilities, manufacturing equipment, third-party manufacturing services and manufacturing technology;
- Product liability, warranty or other claims relating to our products, manufacturing, delivery, services, design or communications, or recalls by our customers for a product containing one of our parts;
- Compliance with or changes in the complex laws, rules and regulations to which we are or may become subject, or actions of enforcement authorities, that restrict our ability to operate our business, or subject us to fines, penalties or other legal liability;
- Changes in tax law and accounting standards that impact the tax rate applicable to us, the jurisdictions in which profits are determined to be earned and taxed, adverse resolution of tax audits, increases in tariff rates, and the ability to realize deferred tax assets;
- A loss suffered by one of our customers or distributors with respect to TI-consigned inventory;
- Financial difficulties of our distributors or their promotion of competing product lines to our detriment; or disputes with significant distributors;
- Losses or curtailments of purchases from key customers or the timing and amount of distributor and other customer inventory adjustments;
- Our ability to maintain or improve profit margins, including our ability to utilize our manufacturing facilities at sufficient levels to cover our fixed operating costs, in an intensely competitive and cyclical industry and changing regulatory environment;
- Our ability to maintain and enforce a strong intellectual property portfolio and maintain freedom of operation in all jurisdictions where we conduct business; or our exposure to infringement claims;
- Instability in the global credit and financial markets;
- Increases in health care and pension benefit costs;
- Our ability to recruit and retain skilled personnel, and effectively manage key employee succession; and
- Impairments of our non-financial assets.

For a more detailed discussion of these factors, see the Risk factors discussion in Item 1A of this report. The forward-looking statements included in this report are made only as of the date of this report, and we undertake no obligation to update the forward-looking statements to reflect subsequent events or circumstances. If we do update any forward-looking statement, you should not infer that we will make additional updates with respect to that statement or any other forward-looking statement.

SIGNATURES

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

TEXAS INSTRUMENTS INCORPORATED

By: /s/ Rafael R. Lizardi

Rafael R. Lizardi
Senior Vice President,
Chief Financial Officer
and Chief Accounting Officer

Date: February 20, 2020

Each person whose signature appears below constitutes and appoints each of Richard K. Templeton, Rafael R. Lizardi, and Cynthia Hoff Trochu, or any of them, each acting alone, his or her true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for such person and in his or her name, place and stead, in any and all capacities in connection with the annual report on Form 10-K of Texas Instruments Incorporated for the year ended December 31, 2019, to sign any and all amendments to the Form 10-K, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, each acting alone, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or their substitutes or substitute, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this Report has been signed below by the following persons on behalf of the Registrant and in the capacities indicated as of the 20th day of February 2020.

<u>Signature</u>	<u>Title</u>
<u>/s/ Mark A. Blinn</u> Mark A. Blinn	Director
<u>/s/ Todd M. Bluedorn</u> Todd M. Bluedorn	Director
<u>/s/ Janet F. Clark</u> Janet F. Clark	Director
<u>/s/ Carrie S. Cox</u> Carrie S. Cox	Director
<u>/s/ Martin S. Craighead</u> Martin S. Craighead	Director
<u>/s/ Jean M. Hobby</u> Jean M. Hobby	Director
<u>/s/ Ronald Kirk</u> Ronald Kirk	Director
<u>/s/ Pamela H. Patsley</u> Pamela H. Patsley	Director

Signature	Title
<hr/> /s/ Robert E. Sanchez <hr/> Robert E. Sanchez	Director
<hr/> /s/ Richard K. Templeton <hr/> Richard K. Templeton	Director, Chairman of the Board, President and Chief Executive Officer
<hr/> /s/ Rafael R. Lizardi <hr/> Rafael R. Lizardi	Senior Vice President, Chief Financial Officer and Chief Accounting Officer

NOTICE OF ANNUAL MEETING OF STOCKHOLDERS

April 23, 2020



Dear Stockholder:

You are cordially invited to attend the 2020 annual meeting of stockholders on Thursday, April 23, 2020, in the auditorium on our property at 12500 TI Boulevard, Dallas, Texas, at 8:30 a.m. (Central time). See "Attendance requirements" for important information about attending the annual meeting. At the meeting we will consider and act upon the following matters:

- the election of directors for the next year,
- advisory approval of the company's executive compensation,
- ratification of the appointment of Ernst & Young LLP as the company's independent registered public accounting firm for 2020, and
- such other matters as may properly come before the meeting.

Stockholders of record at the close of business on February 24, 2020, are entitled to vote at the annual meeting.

We urge you to vote your shares as promptly as possible by: (1) accessing the voting website, (2) calling the toll-free number or (3) signing, dating and mailing the enclosed proxy.

Sincerely,

A handwritten signature in black ink, appearing to read 'Cynthia Hoff Trochu'.

Cynthia Hoff Trochu
Senior Vice President,
Secretary and
General Counsel

Dallas, Texas
March 10, 2020

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PROXY STATEMENT – MARCH 10, 2020

EXECUTIVE OFFICES

12500 TI BOULEVARD, DALLAS, TX 75243

MAILING ADDRESS: P.O. BOX 660199, DALLAS, TX 75266-0199

Voting procedures, quorum and attendance requirements

TI's board of directors requests your proxy for the annual meeting of stockholders on April 23, 2020. If you sign and return the enclosed proxy, or vote by telephone or on the internet, you authorize the persons named in the proxy to represent you and vote your shares for the purposes mentioned in the notice of annual meeting. This proxy statement and related proxy are being distributed on or about March 10, 2020. If you come to the meeting, you can vote in person. If you do not come to the meeting, your shares can be voted only if you have returned a properly signed proxy or followed the telephone or internet voting instructions, which can be found on the enclosed proxy. If you sign and return your proxy but do not give voting instructions, the shares represented by that proxy will be voted as recommended by the board of directors. You can revoke your authorization at any time before the shares are voted at the meeting.

A quorum of stockholders is necessary to hold a valid meeting. If at least a majority of the shares of TI common stock issued and outstanding and entitled to vote are present in person or by proxy, a quorum will exist. Abstentions and broker non-votes are counted as present for purposes of establishing a quorum. Broker non-votes occur when a beneficial owner who holds company stock through a broker does not provide the broker with voting instructions as to any matter on which the broker is not permitted to exercise its discretion and vote without specific instruction.

Shown below is a list of the matters to be considered at the meeting (each of which is discussed elsewhere in this proxy statement), and the vote required for election or approval, as the case may be.

Matter	Required Vote for Election or Approval	Impact of Abstentions or Broker Non-Votes
Election of directors.	Majority of votes present in person or by proxy at the meeting and entitled to be cast in the election with respect to a nominee must be cast for that nominee.	Abstentions have the same effect as votes against. Broker non-votes are not counted as votes for or against.
Advisory vote to approve named executive officer compensation.	Majority of votes present in person or by proxy at the meeting must be cast for the proposal.	Abstentions and broker non-votes have the same effect as votes against.
Proposal to ratify appointment of independent registered public accounting firm.	Majority of votes present in person or by proxy at the meeting must be cast for the proposal.	Abstentions have the same effect as votes against. (Brokers are permitted to exercise their discretion and vote without specific instruction on this matter. Accordingly, there are no broker non-votes.)
Any other matter that may properly be submitted at the meeting.	Majority of votes present in person or by proxy at the meeting must be cast for the proposal.	Abstentions and broker non-votes have the same effect as votes against.

Attendance requirements

Attendance at the meeting is limited to stockholders or their legal proxy holders. Each attendee must present a government-issued photo ID and an advance registration form.

If you plan to attend the annual meeting in person, you must print your own advance registration form and bring it to the meeting to gain access.

- Advance registration forms can be printed by clicking on the “Register for Meeting” button found at www.proxyvote.com and following the instructions provided. You will need the 16-digit control number included on your notice, proxy card or voting instruction form. You must request your advance registration form by 11:59 p.m. April 22, 2020.
- If you are unable to print your advance registration form, please call Stockholder Meeting Registration Phone Support (toll free) at 1-844-318-0137 or (international toll call) at 1-925-331-6070 for assistance.
- On the day of the meeting, you will be required to present valid government-issued photo ID, such as a driver’s license or passport, with your advance registration form. You may be denied entrance if the required identification and form are not presented.

Guest advance registration forms are not available. Exceptions may be granted to stockholders who require a companion in order to facilitate their own attendance (for example, due to a physical disability) by contacting Investor Relations.

Additionally, if you plan to attend as proxy for a stockholder of record, you must present a valid legal proxy from the stockholder of record to you. If you plan to attend as proxy for a street name stockholder, you must present a valid legal proxy from the stockholder of record (i.e., the bank, broker or other holder of record) to the street name stockholder that is assignable and a valid legal proxy from the street name stockholder to you. Stockholders may appoint only one proxy holder to attend on their behalf.

Election of directors

Directors are elected at the annual meeting to hold office until the next annual meeting and until their successors are elected and qualified. The board of directors has designated the following persons as nominees: Mark A. Blinn, Todd M. Bluedorn, Janet F. Clark, Carrie S. Cox, Martin S. Craighead, Jean M. Hobby, Michael D. Hsu, Ronald Kirk, Pamela H. Patsley, Robert E. Sanchez and Richard K. Templeton.

If you return a proxy that is not otherwise marked, your shares will be voted FOR each of the nominees.

Director nominees, qualifications and experience

All of the nominees for directorship will be directors of the company at the time of the annual meeting. If any nominee becomes unable to serve before the meeting, the persons named as proxies may vote for a substitute or the number of directors will be reduced accordingly.

Summary

This table provides a summary view of the qualifications, experience and demographics of each director nominee as of the proxy statement filing date.

	Mark A. Blinn	Todd M. Bluedorn	Janet F. Clark	Carrie S. Cox	Martin S. Craighead	Jean M. Hobby	Michael D. Hsu	Ronald Kirk	Pamela H. Patsley	Robert E. Sanchez	Richard K. Templeton
Qualifications and experience											
Independence	•	•	•	•	•	•	•	•	•	•	•
Multinational experience	•	•	•	•	•	•	•	•	•	•	•
Executive leadership (public or private)	•	•	•	•	•	•	•	•	•	•	•
Technology, research and development	•	•	•	•	•	•	•	•	•	•	•
Manufacturing	•	•	•	•	•	•	•	•	•	•	•
End-market knowledge	•	•	•	•	•	•	•	•	•	•	•
Regulatory, public policy or legal	•	•	•	•	•	•	•	•	•	•	•
Other public board service	•	•	•	•	•	•	•	•	•	•	•
Financial acumen	•	•	•	•	•	•	•	•	•	•	•
Auditing/accounting	•	•	•	•	•	•	•	•	•	•	•
Demographic background											
Tenure (Years)	7	3	5	16	2	4	*	7	16	9	17
Age (Years)	58	56	65	62	60	59	55	65	63	54	61
Gender	M	M	F	F	M	F	M	M	F	M	M
Race/Ethnicity **	C	C	C	C	C	C	A	B	C	H	C

* Elected to the board effective April 1, 2020

** A = Asian; B = African American/Black; C = Caucasian/White; H = Hispanic/Latino

The board prefers a mix of background and experience among its members. The board does not follow any ratio or formula to determine the appropriate mix. Rather, it uses its judgment to identify nominees whose backgrounds, attributes and experiences, taken as a whole, will contribute to the high standards of board service at the company. The board actively seeks women and minority candidates for the pool from which board candidates are chosen. Maintaining a balance of tenure among the directors is also part of the board's consideration. Longer-serving directors bring valuable experience with the company and familiarity with the strategic and operational challenges it has faced over the years, while newer directors bring fresh perspectives and ideas. To help maintain this balance, the company has a mandatory retirement policy, pursuant to which directors cannot stand for election after reaching age 70. The effectiveness of the board's approach to board composition decisions is evidenced by the directors' participation in the insightful and robust, yet respectful, deliberation that occurs at board and committee meetings, and in shaping the agendas for those meetings.

Nominee criteria

In evaluating prospective nominees and as stated in our corporate governance guidelines, the Governance and Stockholder Relations (GSR) Committee considers the following criteria:

- Outstanding achievement in the individual's personal career.
- Relevant commercial expertise.
- International operations experience.
- Financial acumen.
- Government experience.
- Standards of integrity and soundness of judgment.
- Ability to make independent, analytical inquiries.
- Ability to represent the total corporate interests of TI (a director will not be selected to, nor be expected to, represent the interests of any particular group).
- Board diversity (viewpoints, gender, ethnicity).
- Willingness and ability to devote the time required to perform board activities adequately. Directors should not serve on the boards of more than four other public companies.

Nominee assessment

As it considered director nominees for the 2020 annual meeting, the board kept in mind that the most important issues it considers typically relate to the company's strategic direction; succession planning for senior executive positions; the company's financial performance; the challenges of running a large, complex enterprise, including the management of its risks; major acquisitions and divestitures; and significant research and development (R&D) and capital investment decisions. These issues arise in the context of the company's operations, which primarily involve the manufacture and sale of semiconductors all over the world into industrial, automotive, personal electronics, communications equipment and enterprise systems markets.

As described below, each of our director nominees has achieved an extremely high level of success in his or her career, whether at multi-billion dollar, multinational corporate enterprises or significant governmental organizations. In these positions, each has been directly involved in the challenges relating to setting the strategic direction and managing the financial performance, personnel and processes of large, complex organizations. Each has had exposure to effective leaders and has developed the ability to judge leadership qualities. Ten of the director nominees have experience in serving on the board of directors of at least one other major corporation, and one has served in high political office, all of which provides additional relevant experience on which each nominee can draw.

In concluding that each nominee should serve as a director, the board relied on the specific experiences and attributes listed below and on the direct personal knowledge (except as to Mr. Hsu who will join the board April 1, 2020), born of previous service on the board, that each of the nominees brings insight to board deliberations as well as a willingness to ask challenging questions.

All nominees for directorship will be directors of the company at the time of the annual meeting. Mr. Hsu is the only director nominee at the 2020 annual meeting of stockholders who is standing for election by the stockholders for the first time. A search firm retained by the company to assist the GSR Committee in identifying and evaluating potential nominees initially identified Mr. Hsu as a potential director candidate. The search firm conducted research to identify a number of potential candidates, based on the qualifications and skills the GSR Committee determined that candidates should possess. It then conducted further research on the candidates in whom the GSR Committee had the most interest. Following this process, Mr. Hsu was unanimously elected to the company's board of directors.

With the election of Mr. Hsu, the board believes its current size is within the desired range as stated in the board's corporate governance guidelines.

Director nominees

Mark Blinn

Former chief executive officer of Flowserve Corporation



Career highlights

Mr. Blinn served in various positions at Flowserve, including as chief executive officer and president from 2009 to 2017 and chief financial officer from 2004 to 2009. Prior to Flowserve, Mr. Blinn held senior finance positions at several companies, including FedEx Kinko's Office and Print Services, Inc. and Centex Corporation. As an attorney, he represented financial institutions, foreign corporations, and insurance companies.

Key skills and experience

- Management responsibility of a large, multinational manufacturer operating in industrial markets
- Responsibility for significant capital and R&D investments
- Keen appreciation for audit and financial control matters

Other current public company directorships

- Emerson Electric Corporation
- Kraton Corporation
- Leggett & Platt Corporation

Other public company directorships in the last five years

- Flowserve Corporation

Todd Bluedorn

Chairman and chief executive officer of Lennox International Inc.



Career highlights

At Lennox, Mr. Bluedorn has served as chief executive officer since 2007 and chairman of the board since 2012. Prior to Lennox, Mr. Bluedorn served in several senior management positions at United Technologies Corporation since 1995, including leading Otis Elevator – North & South America.

Key skills and experience

- Management responsibility of a large, multinational manufacturer operating in industrial markets
- Responsibility for significant capital and R&D investments

Other current public company directorships

- Lennox International Inc.

Mr. Bluedorn is also a director of Eaton Corporation plc, but he will not stand for re-election as a director at Eaton's upcoming 2020 annual meeting of shareholders.

Other public company directorships in the last five years

- None

Janet Clark

Former chief financial officer of Marathon Oil Corporation



Career highlights

Ms. Clark was chief financial officer and executive vice president of Marathon Oil Corporation from 2007 to 2013 and senior vice president and chief financial officer from 2004 to 2007. Prior to Marathon, she served as chief financial officer of Nuevo Energy Company and Santa Fe Snyder Corporation. Ms. Clark has served as a director of Dell Inc. and Exterran Holdings, Inc.

Key skills and experience

- Keen appreciation for audit and financial control matters
- Oversight of large multinational companies, including one in the technology industry

Other current public company directorships

- EOG Resources, Inc.

Other public company directorships in the last five years

- Goldman Sachs BDC, Inc.
- Goldman Sachs Private Middle Market Credit LLC

Carrie Cox

Former chairman and chief executive officer of Humacyte, Inc.



Career highlights

Ms. Cox was the executive chair of Humacyte, Inc. from 2018 to 2019, where she was also chairman and chief executive officer from 2010 to 2018. Prior to Humacyte, Ms. Cox held several senior management positions in the medical industry, including leading the global pharmaceuticals business at Schering-Plough Corporation and the global prescription business at Pharmacia Corporation.

Key skills and experience

- Management responsibility of a large multinational company operating in a regulated industry
- Responsibility for significant capital and R&D investments

Other current public company directorships

- Cardinal Health, Inc.
- ElectroCore, Inc. (through March 31, 2020)
- Selecta Biosciences, Inc.

Other public company directorships in the last five years

- Array BioPharma Inc.
- Celgene Corporation

Martin Craighead

Former chairman and chief executive officer of Baker Hughes Inc.



Career highlights

At Baker Hughes Inc., Mr. Craighead served as chief executive officer from 2012 to 2017 and chairman of the board from 2013 until the company merged with GE in 2017. He then served as vice chair of Baker Hughes, a GE company, until 2019. Prior to leading the company, Mr. Craighead held several senior management roles at Baker Hughes, including as chief operating officer.

Key skills and experience

- Management responsibility of a large, multinational company operating in industrial markets
- Responsibility for significant capital and R&D investments

Other current public company directorships

- Emerson Electric Corporation
- PQ Corporation

Other public company directorships in the last five years

- Baker Hughes, a GE company
- Baker Hughes Inc.

Jean Hobby

Retired partner, Pricewaterhouse Coopers LLP



Career highlights

Ms. Hobby was global strategy officer of Pricewaterhouse Coopers from 2013 to 2015. Prior to that, she held several senior management positions at the firm, including as technology, media and telecom sector leader and chief financial officer.

Key skills and experience

- Extensive audit knowledge and keen appreciation for audit, financial control, and technology matters
- Management responsibility at a large, multinational company
- Strategic planning expertise

Other current public company directorships

- Hewlett Packard Enterprise Company
- Integer Holdings Corporation

Other public company directorships in the last five years

- CA, Inc.

Michael Hsu (effective April 1, 2020)

Chairman and chief executive officer of Kimberly-Clark Corporation

*Career highlights*

At Kimberly-Clark, Mr. Hsu has served as chief executive officer since 2019 and chairman since 2020. Prior to those roles, he was group president North America from 2012 to 2016, then president and chief operating officer from 2017 to 2019. Mr. Hsu has also held senior leadership positions at Kraft Foods, Inc. and H.J. Heinz Company.

Key skills and experience

- Management responsibility at a large, multinational manufacturer
- Responsibility for significant capital and R&D investment

Other current public company directorships

- Kimberly-Clark Corporation

Other public company directorships in the last five years

- None

Ron Kirk

Senior of counsel, Gibson, Dunn & Crutcher

*Career highlights*

Mr. Kirk has been senior of counsel at Gibson, Dunn & Crutcher since 2013, and co-chairs the international trade practice group. He served as the U.S. Trade Representative from 2009 to 2013, where he focused on the development and enforcement of U.S. intellectual property law. Mr. Kirk has been a director of Brinker International, Inc. and Dean Foods Company.

Key skills and experience

- Management responsibility of a large, complex organization operating internationally
- Keen insight into issues bearing on global economic activity and international trade policies

Other current public company directorships

- Macquarie Infrastructure Corporation

Other public company directorships in the last five years

- None

Pamela Patsley

Former chairman and chief executive officer of MoneyGram International, Inc.

*Career highlights*

At MoneyGram, Ms. Patsley was chair and chief executive officer from 2009 to 2015, then executive chair until 2018. Prior to that, she was senior executive vice president at First Data Corporation and chief executive officer of Paymentech, Inc. She also served as chief financial officer of First USA, Inc. and began her career as an auditor.

Key skills and experience

- Management responsibility of a large, multinational company
- Keen appreciation for audit, financial control, and technology matters

Other current public company directorships

- ACI Worldwide, Inc.
- Hilton Grand Vacations Inc.
- Keurig Dr. Pepper Inc.

Other public company directorships in the last five years

- MoneyGram International, Inc.

Robert Sanchez

Chairman and chief executive officer of Ryder System, Inc.



Career highlights

Mr. Sanchez has been chairman and executive officer of Ryder since 2013. During his career at Ryder, Mr. Sanchez has served as president, chief operating officer, chief information officer, and chief financial officer. He has also had a broad range of leadership roles in Ryder's business segments, including as president of its Global Fleet Management Solutions business.

Key skills and experience

- Management responsibility of a large, multinational transportation and logistics company
- Responsibility for significant capital investments
- Keen appreciation for technology matters

Other current public company directorships

- Ryder System, Inc.

Other public company directorships in the last five years

- None

Rich Templeton

Chairman and chief executive officer of Texas Instruments Incorporated



Career highlights

Mr. Templeton is a 39-year veteran of the semiconductor industry, serving the last 25 years at a senior level at the company. He has been the company's chairman since 2008, and chief executive officer and president from 2004 to June 2018 and July 2018 to present.

Key skills and experience

- Deep knowledge of all aspects of the company and the semiconductor industry
- Management responsibility of the company
- Responsibility for significant capital and R&D investments

Other current public company directorships

- None

Other current public company directorships in the last five years

- None

Director nomination process

The board is responsible for approving nominees for election as directors. To assist in this task, the board has designated a standing committee, the GSR Committee, that is responsible for reviewing and recommending nominees to the board. The GSR Committee is comprised solely of independent directors as defined by the rules of the Nasdaq Stock Market (Nasdaq) and the board's corporate governance guidelines. Our board of directors has adopted a written charter for the GSR Committee. It can be found on our website at www.ti.com/corporategovernance.

It is a long-standing policy of the board to consider prospective board nominees recommended by stockholders. A stockholder who wishes to recommend a prospective board nominee for the GSR Committee's consideration can write to the Secretary of the GSR Committee, Texas Instruments Incorporated, P.O. Box 655936, MS 8658, Dallas, TX 75265-5936. The GSR Committee will evaluate the stockholder's prospective board nominee in the same manner as it evaluates other nominees.

Under the company's by-laws, a stockholder, or a group of up to 20 stockholders, owning at least 3 percent of the company's outstanding common stock continuously for at least three years, may nominate and include in the company's proxy materials director nominees constituting up to the greater of two individuals or 20 percent of the board of directors, provided that the stockholder(s) and the nominee(s) satisfy the requirements specified in the by-laws, which can be found on our website at www.ti.com/corporategovernance.

The company's by-laws also allow stockholders to nominate directors without involving the GSR Committee or including the nominee in the company's proxy materials. To do so, stockholders must comply with the requirements set forth in the by-laws.

Communications with the board

Stockholders and others who wish to communicate with the board, a board committee or an individual director may write to them at: P.O. Box 655936, MS 8658, Dallas, TX 75265-5936. All communications addressed to the board, a board committee, or an individual director that are sent to this address will be shared with the addressee.

Corporate governance

The board has a long-standing commitment to responsible and effective corporate governance. We annually conduct extensive governance reviews and engage in investor outreach specific to governance, executive compensation and environmental and social matters. The board's corporate governance guidelines (which include the director independence standards), the charters of each of the board's committees, TI's code of conduct, our code of ethics for our CEO and senior financial officers and our by-laws are available on our website at www.ti.com/corporategovernance. Stockholders may request copies of these documents free of charge by writing to Texas Instruments Incorporated, P.O. Box 660199, MS 8657, Dallas, TX 75266-0199, Attn: Investor Relations.

Annual meeting attendance

It is a policy of the board to encourage directors to attend each annual meeting of stockholders. Attendance allows for direct interaction between stockholders and board members. In 2019, all directors then in office and standing for re-election attended TI's annual meeting of stockholders.

Director independence

The board has determined that each of our directors is independent except for Mr. Templeton. In connection with this determination, information was reviewed regarding directors' business and charitable affiliations, directors' immediate family members and their employers, and any transactions or arrangements between the company and such persons or entities. The board has adopted the following standards for determining independence.

- A. In no event will a director be considered independent if:
 - 1. He or she is a current partner of or is employed by the company's independent auditors;
 - 2. A family member of the director is (a) a current partner of the company's independent auditors or (b) currently employed by the company's independent auditors and personally works on the company's audit;
 - 3. Within the current or preceding three fiscal years he or she was, and remains at the time of the determination, a partner in or a controlling shareholder, an executive officer or an employee of an organization that in the current year or any of the past three fiscal years (a) made payments to, or received payments from, the company for property or services, (b) extended loans to or received loans from, the company, or (c) received charitable contributions from the company, in an amount or amounts which, in the aggregate in such fiscal year, exceeded the greater of \$200,000 or 2 percent of the recipient's consolidated gross revenues for that year (for purposes of this standard, "payments" excludes payments arising solely from investments in the company's securities and payments under non-discretionary charitable contribution matching programs); or
 - 4. Within the current or preceding three fiscal years a family member of the director was, and remains at the time of the determination, a partner in or a controlling shareholder or an executive officer of an organization that in the current year or any of the past three fiscal years (a) made payments to, or received payments from, the company for property or services, (b) extended loans to or received loans from the company, or (c) received charitable contributions from the company, in an amount or amounts which, in the aggregate in such fiscal year, exceeded the greater of \$200,000 or 2 percent of the recipient's consolidated gross revenues for that year (for purposes of this standard, "payments" excludes payments arising solely from investments in the company's securities and payments under non-discretionary charitable contribution matching programs).
- B. In no event will a director be considered independent if, within the preceding three years:
 - 1. He or she was employed by the company (except in the capacity of interim chairman of the board, chief executive officer or other executive officer, provided the interim employment did not last longer than one year);
 - 2. He or she received more than \$120,000 during any twelve-month period in compensation from the company (other than (a) compensation for board or board committee service, (b) compensation received for former service lasting no longer than one year as an interim chairman of the board, chief executive officer or other executive officer and (c) benefits under a tax-qualified retirement plan, or non-discretionary compensation);

3. A family member of the director was employed as an executive officer by the company;
 4. A family member of the director received more than \$120,000 during any twelve-month period in compensation from the company (excluding compensation as a non-executive officer employee of the company);
 5. He or she was (but is no longer) a partner or employee of the company's independent auditors and worked on the company's audit within that time;
 6. A family member of the director was (but is no longer) a partner or employee of the company's independent auditors and worked on the company's audit within that time;
 7. He or she was an executive officer of another entity at which any of the company's current executive officers at any time during the past three years served on that entity's compensation committee; or
 8. A family member of the director was an executive officer of another entity at which any of the company's current executive officers at any time during the past three years served on that entity's compensation committee.
- C. No member of the Audit Committee may accept directly or indirectly any consulting, advisory or other compensatory fee from the company, other than in his or her capacity as a member of the board or any board committee. Compensatory fees do not include the receipt of fixed amounts of compensation under a retirement plan (including deferred compensation) for prior service with the company (provided that such compensation is not contingent in any way on continued service). In addition, no member of the Audit Committee may be an affiliated person of the company except in his or her capacity as a director.
- D. With respect to service on the Compensation Committee, the board will consider all factors that it deems relevant to determining whether a director has a relationship to the company that is material to that director's ability to be independent from management in connection with the duties of a Compensation Committee member, including but not limited to:
1. The source of compensation of the director, including any consulting, advisory or compensatory fee paid by the company to the director; and
 2. Whether the director is affiliated with the company, a subsidiary of the company or an affiliate of a subsidiary of the company.
- E. For any other relationship, the determination of whether it would interfere with the director's exercise of independent judgment in carrying out his or her responsibilities, and consequently whether the director involved is independent, will be made by directors who satisfy the independence criteria set forth in this section.

For purposes of these independence determinations, "company" and "family member" will have the same meaning as under Nasdaq rules.

Board organization

Board and committee meetings

During 2019, the board held eight meetings. The board has three standing committees described below. The standing committees of the board collectively held 19 meetings in 2019. Each director attended all of the board and relevant committee meetings.

Director	Audit Committee	Compensation Committee	Governance and Stockholder Relations Committee
M. A. Blinn	Chair		
T. M. Bluedorn	•		
J. F. Clark			•
C. S. Cox		•	
M. S. Craighead		•	
J. M. Hobby	•		
M. D. Hsu *	•		
R. Kirk			Chair
P. H. Patsley **		Chair	
R. E. Sanchez			•
R. K. Templeton			

* Effective April 1, 2020

** Lead director

Committees of the board

Audit Committee

The Audit Committee is a separately designated standing committee established in accordance with Section 3(a)(58)(A) of the Securities Exchange Act of 1934, as amended. All members of the Audit Committee are independent under Nasdaq rules and the board's corporate governance guidelines. From April 26, 2018, to April 24, 2019, the committee members were Mr. Blinn (chair), Mr. Bluedorn and Ms. Hobby, with Mr. Craighead joining the committee on July 1, 2018. Since April 25, 2019, the committee members have been Mr. Blinn (chair), Mr. Bluedorn and Ms. Hobby. Mr. Hsu will join the Audit Committee effective April 1, 2020. The Audit Committee is generally responsible for:

- Reviewing:
 - The annual report of TI's independent registered public accounting firm related to quality control.
 - TI's annual and quarterly reports to the SEC, including the financial statements and the "Management's Discussion and Analysis" portion of those reports, and recommending appropriate action to the board.
 - TI's audit plans.
 - Before issuance TI's news releases regarding annual and interim financial results and discussing with management any related earnings guidance that may be provided to analysts and rating agencies.
 - Relationships between the independent registered public accounting firm and TI.
 - The adequacy of TI's internal accounting controls and other factors affecting the integrity of TI's financial reports, and discussing with management and with the independent registered public accounting firm.
 - TI's risk assessment and risk management policies.
 - TI's compliance and ethics program.
 - A report of compliance of management and operating personnel with TI's code of conduct, including TI's conflict of interest policy.
 - TI's non-employee-related insurance programs.
 - Changes, if any, in major accounting policies of the company.
 - Trends in accounting policy changes that are relevant to the company.
 - The company's policy regarding investments and financial derivative products.
- Discussing TI's audited financial statements with management and the independent registered public accounting firm, including a discussion with the firm regarding the matters required to be reviewed under applicable legal or regulatory requirements.
- Creating and periodically reviewing TI's whistleblower policy.
- Appointing, compensating, retaining and overseeing TI's independent registered public accounting firm.

The board has determined that all members of the Audit Committee are financially sophisticated, as the board has interpreted such qualifications in its business judgment. In addition, the board has designated Mr. Blinn as the audit committee financial expert as defined in the Securities Exchange Act of 1934, as amended.

The Audit Committee met seven times in 2019. The Audit Committee holds regularly scheduled meetings and reports its activities to the board. The committee also continued its long-standing practice of meeting directly with our internal audit staff to discuss the audit plan and to allow for direct interaction between Audit Committee members and our internal auditors. See page 44 for a report of the committee.

Compensation Committee

All members of the Compensation Committee are independent. From April 26, 2018, to April 24, 2019, the committee members were Ms. Patsley (chair), Mr. Daniel A. Carp and Ms. Cox. Since April 25, 2019, the committee members have been Ms. Patsley (chair), Ms. Cox and Mr. Craighead. The committee is responsible for:

- Reviewing the performance of the CEO and determining his compensation.
- Setting the compensation of the company's other executive officers.
- Overseeing administration of employee benefit plans.
- Making recommendations to the board regarding:
 - Institution and termination of, revisions in and actions under employee benefit plans that (i) increase benefits only for officers of the company or disproportionately increase benefits for officers of the company more than other employees of the company, (ii) require or permit the issuance of the company's stock or (iii) require board approval.

- Reservation of company stock for use as awards of grants under plans or as contributions or sales to any trustee of any employee benefit plan.
- Taking action as appropriate regarding the institution and termination of, revisions in and actions under employee benefit plans that are not required to be approved by the board.
- Appointing, setting the compensation of, overseeing and considering the independence of any compensation consultant or other advisor.

The Compensation Committee met six times in 2019. The Compensation Committee holds regularly scheduled meetings, reports its activities to the board, and consults with the board before setting annual executive compensation. See page 31 for a report of the committee.

In performing its functions, the committee is supported by the company's Human Resources organization. The committee has the authority to retain any advisors it deems appropriate to carry out its responsibilities. The committee retained Pearl Meyer & Partners as its compensation consultant for the 2019 compensation cycle. The committee instructed the consultant to advise it directly on executive compensation philosophy, strategies, pay levels, decision-making processes and other matters within the scope of the committee's charter. Additionally, the committee instructed the consultant to assist the company's Human Resources organization in its support of the committee in these matters with such items as peer-group assessment, analysis of the executive compensation market, and compensation recommendations.

The Compensation Committee considers it important that its compensation consultant's objectivity not be compromised by other engagements with the company or its management. In support of this belief, the committee has a policy on compensation consultants, a copy of which may be found on www.ti.com/corporategovernance. During 2019, the committee determined that its compensation consultant was independent of the company and had no conflict of interest.

The Compensation Committee considers executive compensation in a multistep process that involves the review of market information, performance data and possible compensation levels over several meetings leading to the annual determinations in January. Before setting executive compensation, the committee reviews the total compensation and benefits of the executive officers and considers the impact that their retirement, or termination under various other scenarios, would have on their compensation and benefits.

The CEO and the senior vice president responsible for Human Resources, who is an executive officer, are regularly invited to attend meetings of the committee. The CEO is excused from the meeting during any deliberations or vote on his compensation. No executive officer determines his or her own compensation or the compensation of any other executive officer. As members of the board, the members of the committee receive information concerning the performance of the company during the year and interact with our management. The CEO gives the committee and the board an assessment of his own performance during the year just ended. He also reviews the performance of the other executive officers with the committee and makes recommendations regarding their compensation. The senior vice president responsible for Human Resources assists in the preparation of and reviews the compensation recommendations made to the committee other than for her compensation.

The Compensation Committee's charter provides that it may delegate its power, authority and rights with respect to TI's long-term incentive plans, employee stock purchase plan and employee benefit plans to (i) one or more committees of the board established or delegated authority for that purpose; or (ii) employees or committees of employees except that no such delegation may be made with respect to compensation of the company's executive officers.

Pursuant to that authority, the Compensation Committee has delegated to a special committee established by the board the authority to, among other things, grant a limited number of stock options and restricted stock units (RSUs) under the company's long-term incentive plans. The sole member of the special committee is Mr. Templeton. The special committee has no authority to grant, amend or terminate any form of compensation for TI's executive officers. The Compensation Committee reviews all activity of the special committee.

Governance and Stockholder Relations Committee

All members of the GSR Committee are independent. From April 26, 2019, to April 24, 2019, the committee members were Mr. Kirk (Chair), Mr. Ralph W. Babb, Jr., Ms. Clark and Mr. Sanchez. Since April 25, 2019, the committee members have been Mr. Kirk (chair), Ms. Clark and Mr. Sanchez. The GSR Committee is generally responsible for:

- Making recommendations to the board regarding:
 - The development and revision of our corporate governance principles.

- The size, composition and functioning of the board and board committees.
- Candidates to fill board positions.
- Nominees to be designated for election as directors.
- Compensation of board members.
- Organization and responsibilities of board committees.
- Succession planning by the company.
- Issues of potential conflicts of interest involving a board member raised under TI's conflict of interest policy.
- Election of executive officers of the company.
- Topics affecting the relationship between the company and stockholders.
- Public issues likely to affect the company.
- Responses to proposals submitted by stockholders.
- Reviewing:
 - Contribution policies of the company and the TI Foundation.
 - Scope of activities of the company's political action committee.
 - Revisions to TI's code of conduct.
- Electing officers of the company other than the executive officers.
- Overseeing an annual evaluation of the board and the committee.

The GSR Committee met six times in 2019. The GSR Committee holds regularly scheduled meetings and reports its activities to the board. See "Director nomination process" for a discussion of stockholder nominations and recommendations and "Communications with the board" for details on how to contact the board.

Board evaluation process

The board recognizes that a robust and constructive evaluation process is an essential part of good corporate governance and board effectiveness. The board and committee annual evaluation processes are designed to assess board and committee effectiveness, as well as individual director performance and contribution levels. The results of the evaluations are part of the GSR Committee's and the board's consideration in connection with their review of director nominees to ensure the board continues to operate effectively.

Annually, each of our directors completes comprehensive board and committee questionnaires. Each committee oversees its own evaluation process, and the GSR Committee also oversees the board evaluation process. The questionnaires, and ongoing feedback from individual directors, facilitate a candid assessment of: (i) the board and committees' oversight of risk, strategy, and operations; (ii) the board's culture, leadership structure, and mix of director skills, qualifications and experiences; and (iii) board and committee meeting mechanics. Our directors are willing to have honest and difficult conversations as needed during the evaluation and nomination process.

Board leadership structure

The board's current leadership structure combines the positions of chairman and CEO, and includes a lead director who presides at executive sessions and performs the duties listed below. The board believes that this structure, combined with its other practices (such as (a) including on each board agenda an opportunity for the independent directors to comment on and influence the proposed strategic agenda for future meetings and (b) holding an executive session of the independent directors at each board meeting), allows it to maintain the active engagement of independent directors and appropriate oversight of management.

The lead director is elected by the independent directors annually. The independent directors have elected Ms. Patsley to serve as lead director. The duties of the lead director are to:

- Preside at all meetings of the board at which the chairman is not present, including executive sessions of the independent directors;
- Serve as liaison between the chairman and the independent directors;
- Approve information sent to the board;
- Approve meeting agendas for the board
- Approve meeting schedules to assure that there is sufficient time for discussion of all agenda items; and
- If requested by major shareholders, ensure that he or she is available for consultation and direct communication.

In addition, the lead director has authority to call meetings of the independent directors.

The board, led by its GSR Committee, regularly reviews the board's leadership structure. The board's consideration is guided by two questions: would stockholders be better served and would the board be more effective with a different structure. The board's views are informed by a review of the practices of other companies and insight into the preferences of top stockholders, as gathered from face-to-face dialogue and review of published guidelines. The board also considers how board roles and interactions would change if its leadership structure changed. The board's goal is for each director to have an equal stake in the board's actions and equal accountability to the corporation and its stockholders.

The board continues to believe that there is no uniform solution for a board leadership structure. Indeed, the company has had varying board leadership models over its history, at times separating the positions of chairman and CEO and at times combining the two, and now utilizing a lead director.

Risk oversight by the board

It is management's responsibility to assess and manage the various risks TI faces. It is the board's responsibility to oversee management in this effort. In exercising its oversight, the board has allocated some areas of focus to its committees and has retained areas of focus for itself, as more fully described below.

Management generally views the risks TI faces as falling into the following categories: strategic, operational, financial and compliance. The board as a whole has oversight responsibility for the company's strategic and operational risks (e.g., major initiatives, competitive markets and products, sales and marketing, R&D and cybersecurity). Throughout the year the CEO discusses these risks with the board. Additionally, at least once each year, the company's chief information officer provides information on the cybersecurity risks and the company's approach to protecting the company's data and systems infrastructure with the board. In the event of a material cybersecurity event, management would notify the board and, in compliance with our procedures, determine the timing and extent of the response and public disclosure, and whether and any future vulnerabilities are expected.

TI's Audit Committee has oversight responsibility for financial risk (such as accounting, finance, internal controls and tax strategy). Oversight responsibility for compliance risk is shared by the board committees. For example, the Audit Committee oversees compliance with the company's code of conduct and finance- and accounting-related laws and policies, as well as the company's compliance program itself; the Compensation Committee oversees compliance with the company's executive compensation plans and related laws and policies; and the GSR Committee oversees compliance with governance-related laws and policies, including the company's corporate governance guidelines.

The Audit Committee oversees the company's approach to risk management as a whole. The company's CFO reviews the company's risk management process with the Audit Committee at least annually. In addition, the company's chief information officer reviews the company's information technology systems with the Audit Committee periodically and includes a discussion of key cybersecurity risks as appropriate.

The board's leadership structure is consistent with the board and committees' roles in risk oversight. As discussed above, the board has found that its current structure and practices are effective in fully engaging the independent directors. Allocating various aspects of risk oversight among the committees provides for similar engagement. Having the chairman and CEO review strategic and operational risks with the board ensures that the director most knowledgeable about the company, the industry in which it operates and the competition and other challenges it faces shares those insights with the board, providing for a thorough and efficient process.

Director compensation

The GSR Committee has responsibility for reviewing and making recommendations to the board on compensation for non-employee directors, with the board making the final determination. The committee has no authority to delegate its responsibility regarding director compensation. In carrying out this responsibility, it is supported by TI's Human Resources organization. The CEO, the senior vice president responsible for Human Resources and the Secretary review the recommendations made to the committee. The CEO also votes, as a member of the board, on the compensation of non-employee directors.

The compensation arrangements in 2019 for the non-employee directors were:

- Annual retainer of \$85,000 for board and committee service.
- Additional annual retainer of \$25,000 for service as the lead director.
- Additional annual retainer of \$30,000 for service as chair of the Audit Committee; \$20,000 for service as chair of the Compensation Committee; and \$15,000 for service as chair of the GSR Committee.
- Annual grant of a 10-year option to purchase TI common stock pursuant to the terms of the Texas Instruments 2018 Director Compensation Plan (Director Plan), which was approved by stockholders in April 2018. The grant date value is \$100,000, determined using a Black-Scholes option-pricing model (subject to the board's ability to adjust the grant downward). These non-qualified options become exercisable in four equal annual installments beginning on the first anniversary of the grant and also will become fully exercisable in the event of termination of service following a change in control (as defined in the Director Plan) of TI. If a director's service terminates due to death, disability or ineligibility to stand for re-election under the company's by-laws, or after the director has completed eight years of service, then all outstanding options held by the director shall continue to become exercisable in accordance with their terms. If a director's service terminates for any other reason, all outstanding options held by the director shall be exercisable for 30 days after the date of termination, but only to the extent such options were exercisable on the date of termination.
- Annual grant of restricted stock units pursuant to the Director Plan with a grant date value of \$100,000 (subject to the board's ability to adjust the grant downward). The restricted stock units vest on the fourth anniversary of their date of grant and upon a change in control as defined in the Director Plan. If a director is not a member of the board on the fourth anniversary of the grant, restricted stock units will nonetheless settle (i.e., the shares will issue) on such anniversary date if the director has completed eight years of service prior to termination or the director's termination was due to death, disability or ineligibility to stand for re-election under the company's by-laws. The director may defer settlement of the restricted stock units at his or her election. Upon settlement, the director will receive one share of TI common stock for each restricted stock unit. Dividend equivalents are paid on the restricted stock units at the same rate as dividends on TI common stock. The director may defer receipt of dividend equivalents.
- \$1,000 per day compensation for other activities designated by the chairman.
- A one-time grant of 2,000 restricted stock units upon a director's initial election to the board.

The board has determined that annual grants of equity compensation to non-employee directors will be timed to occur in January when grants are made to our U.S. employees in connection with the annual compensation review process. See "Process for equity grants" for a discussion regarding the timing of equity compensation grants.

It is against TI policy for any employee, including an executive officer, or director to engage in trading in "puts" (options to sell at a fixed price), "calls" (similar options to buy), or other options or hedging techniques on TI stock specifically designed to limit losses on TI stock or equity compensation held by the employee or director.

Directors are not paid a fee for meeting attendance, but we reimburse non-employee directors for their travel, lodging and related expenses incurred in connection with attending board, committee and stockholders meetings and other designated events. In addition, non-employee directors may travel on company aircraft to and from these meetings and other designated events.

Under the Director Plan, some directors have chosen to defer all or part of their cash compensation. These deferred amounts are credited to either a cash account or stock unit account. Cash accounts earn interest from TI at a rate currently based on Moody's Seasoned Aaa Corporate Bonds. For 2019, that rate was 3.99 percent. Stock unit accounts fluctuate in value with the underlying shares of TI common stock, which will be issued after the deferral period. Dividend equivalents are paid on these stock units. Directors may also defer settlement of the restricted stock units they receive.

We have arrangements with certain customers whereby our employees may purchase consumer products containing TI components at discounted pricing. In addition, the TI Foundation has an educational and cultural matching gift program. In both cases, directors are entitled to participate on the same terms and conditions available to employees.

Non-employee directors are not eligible to participate in any TI-sponsored pension plan.

2019 director compensation

The following table shows the compensation of all persons who were non-employee members of the board during 2019 for services in all capacities to TI in 2019.

Name (1)	Fees Earned or Paid in Cash (\$) (2)	Stock Awards (\$) (3)	Option Awards (\$) (4)	Non-Equity Incentive Plan Compensation (\$) (5)	Change in Pension Value and Nonqualified Deferred Compensation Earnings (5)	All Other Compensation (\$) (6)	Total (\$)
R. W. Babb, Jr. . . .	\$ 28,333	\$ 99,920	\$ 99,984	—	—	\$ 40	\$ 228,277
M. A. Blinn	\$ 123,333	\$ 99,920	\$ 99,984	—	—	\$ 40	\$ 323,277
T. M. Bluedorn . . .	\$ 85,000	\$ 99,920	\$ 99,984	—	—	\$ 40	\$ 284,944
D. A. Carp	\$ 28,335	\$ 99,920	\$ 99,984	—	—	\$ 937	\$ 229,176
J. F. Clark	\$ 85,000	\$ 99,920	\$ 99,984	—	—	\$ 30,040	\$ 314,944
C. S. Cox	\$ 85,000	\$ 99,920	\$ 99,984	—	\$ 2,528	\$ 22,540	\$ 309,972
M. S. Craighead . .	\$ 85,000	\$ 99,920	\$ 99,984	—	—	\$ 27,540	\$ 312,444
J. M. Hobby	\$ 85,000	\$ 99,920	\$ 99,984	—	—	\$ 40	\$ 284,944
R. Kirk	\$ 100,000	\$ 99,920	\$ 99,984	—	—	\$ 15,089	\$ 314,993
P. H. Patsley	\$ 121,667	\$ 99,920	\$ 99,984	—	—	\$ 30,040	\$ 351,611
R. E. Sanchez	\$ 85,000	\$ 99,920	\$ 99,984	—	—	\$ 20,040	\$ 304,944

- (1) Mr. Hsu was elected to the board effective April 1, 2020, and accordingly received no compensation for services as a TI director in 2019. Mr. Babb and Mr. Carp, independent directors, reached the age of 70 by the date of the 2019 annual meeting and therefore were ineligible under the company's by-laws to stand for re-election at the meeting.
- (2) Includes amounts deferred at the director's election.
- (3) Shown is the aggregate grant date fair value of restricted stock units granted in 2019 calculated in accordance with Financial Accounting Standards Board Accounting Standards Codification™ Topic 718, Compensation-Stock Compensation (ASC 718). The discussion of the assumptions used for purposes of calculating the grant date fair value appears in Note 3 to the financial statements contained in Item 8 ("Note 3 to the 2019 financial statements") in TI's annual report on Form 10-K for the year ended December 31, 2019. Each restricted stock unit represents the right to receive one share of TI common stock. For restricted stock units granted prior to 2007, shares are issued at the time of mandatory retirement from the board (age 70) or upon the earlier of termination of service from the board after completing eight years of service or death or disability. For information regarding share issuances under restricted stock units granted after 2006, see the discussion on page 36.

The table below shows the aggregate number of shares underlying outstanding restricted stock units held by the named individuals as of December 31, 2019.

Name	Restricted Stock Units (in Shares)
R. W. Babb, Jr.	5,014
M. A. Blinn	11,135
T. M. Bluedorn	3,864
D. A. Carp	5,014
J. F. Clark	7,014
C. S. Cox	30,160
M. S. Craighead	2,957
J. M. Hobby	5,125
R. Kirk	5,014
P. H. Patsley	7,014
R. E. Sanchez	6,867

- (4) Shown is the aggregate grant date fair value of options granted in 2019 calculated in accordance with ASC 718. The discussion of the assumptions used for purposes of calculating the grant date fair value appears in Note 3 to the 2019 financial statements. The terms of these options are as set forth on page 35. The table below shows the aggregate number of shares underlying outstanding stock options held by the named individuals as of December 31, 2019.

Name	Options (in Shares)
R. W. Babb, Jr.	35,432
M. A. Blinn	14,369
T. M. Bluedorn	8,838
D. A. Carp	24,893
J. F. Clark	24,893
C. S. Cox	74,636
M. S. Craighead	4,532
J. M. Hobby	14,903
R. Kirk	47,731
P. H. Patsley	84,638
R. E. Sanchez	47,731

- (5) SEC rules require the disclosure of earnings on deferred compensation to the extent that the interest rate exceeds a specified rate (Federal Rate), which is 120 percent of the applicable federal long-term interest rate with compounding. Under the terms of the Director Plan, deferred compensation cash amounts earn interest at a rate based on Moody's Seasoned Aaa Corporate Bonds. For 2019, this interest rate exceeded the Federal Rate by 0.42 percentage points. Shown is the amount of interest earned on the directors' deferred compensation accounts that was in excess of the Federal Rate.
- (6) Consists of (a) the annual cost (\$40 per director) of premiums for travel and accident insurance policies, (b) contributions under the TI Foundation matching gift program of \$30,000 for Ms. Clark, \$22,500 for Ms. Cox, \$27,500 for Mr. Craighead, \$15,049 for Mr. Kirk, \$30,000 for Ms. Patsley and \$20,000 for Mr. Sanchez and (c) for Mr. Carp, third-party administration fees for the Director Award Program. Each director whose service commenced prior to June 20, 2002, is eligible to participate in the Director Award Program, a charitable donation program under which we will contribute a total of \$500,000 per eligible director to as many as three educational institutions recommended by the director and approved by us. The contributions are made following the director's death. Directors receive no financial benefit from the program, and all charitable deductions belong to the company. In accordance with SEC rules, we have included the company's annual costs under the program in All Other Compensation of the director who participates. The cost attributable to Mr. Carp for his participation in this program was \$897.

Executive compensation

We are providing shareholders the opportunity to cast advisory votes on named executive officer compensation as required by Section 14A of the Securities Exchange Act.

Proposal regarding advisory approval of the company's executive compensation

The "named executive officers" are the chief executive officer, the chief financial officer and the three other most highly compensated executive officers, as named in the compensation tables on pages 32-43.

We ask shareholders to approve the following resolution:

RESOLVED, that the compensation paid to the company's named executive officers, as disclosed in this proxy statement pursuant to the Securities and Exchange Commission's compensation disclosure rules, including the Compensation Discussion and Analysis, compensation tables and narrative discussion on pages 20-43 of this proxy statement, is hereby approved.

We encourage shareholders to review the Compensation Discussion and Analysis section of the proxy statement, which follows. It discusses our executive compensation policies and programs and explains the compensation decisions relating to the named executive officers for 2019. We believe that the policies and programs serve the interests of our shareholders and that the compensation received by the named executive officers is commensurate with the performance and strategic position of the company.

Although the outcome of this annual vote is not binding on the company or the board, the Compensation Committee of the board will consider it when setting future compensation for the executive officers.

The board of directors recommends a vote FOR the annual resolution approving the named executive officer compensation for 2019, as disclosed in this proxy statement.

Compensation Discussion and Analysis

This section describes TI's compensation program for executive officers. It will provide insight into the following:

- The elements of the 2019 compensation program, why we selected them and how they relate to one another; and
- How we determined the amount of compensation for 2019.

The executive officers of TI have the broadest job responsibilities and policy-making authority in the company. We hold them accountable for the company's performance and for maintaining a culture of strong ethics and compliance. Details of compensation for our CEO, our CFO and the three other highest paid individuals who were executive officers in 2019 (collectively called the "named executive officers") can be found in the tables following the Compensation Committee report.

Executive summary

- **TI's compensation program is structured to pay for performance and deliver rewards that encourage executives to think and act in both the short- and long-term interests of our shareholders. The majority of total compensation for our executives each year comes in the form of variable cash and equity compensation. Variable cash is tied to the short-term performance of the company, and the value of equity is tied to the long-term performance of the company. We believe our compensation program holds our executive officers accountable for the financial and competitive performance of TI.**
- **2019 compensation decisions for the CEO:**
 - Base salary was increased by 4.0 percent over 2018.
 - The grant date fair value of equity compensation awarded in 2019 increased by 8 percent from 2018, reflecting an effort to align with the projected market range for similarly situated CEOs in our comparator group.
 - The bonus decision was based primarily on the following performance results in 2019:

	2019 Absolute Performance	2019 Relative Performance *
Revenue Growth: Total TI	-8.9%	Below median
Profit from Operations as a % of Revenue (PFO%)	39.8%	Above median
Total Shareholder Return (TSR)	39.6%	Below median

Year-on-Year Change in CEO Bonus (2019 bonus compared with 2018)	-7% change
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* Relative to semiconductor competitors as outlined under "Comparator group;" includes estimates and projections of certain competitors' financial results. See "Analysis of compensation determinations – Bonus – Assessment of 2019 performance" for details of the Compensation Committee's assessment of TI's performance. (It is important to note that the median growth rate of competitor companies includes the benefit of acquisitions, whereas TI's growth rate is entirely organic.)

- Our executive compensation program is designed to encourage executive officers to pursue strategies that serve the interests of the company and shareholders, and not to promote excessive risk-taking by our executives. It is built on a foundation of sound corporate governance and includes:
 - Executive officers do not have employment contracts and are not guaranteed salary increases, bonus amounts or awards of equity compensation.

- We have never repriced stock options. We do not grant reload options. We grant equity compensation with double-trigger change-in-control terms, which accelerate the vesting of grants only if the grantee has been terminated involuntarily within a limited time after a change in control of the company.
- Bonus and equity compensation awards are subject to claw back as described under “Recoupment policy” below.
- We do not provide excessive perquisites. We provide no tax gross-ups for perquisites.
- We do not guarantee a return or provide above-market returns on compensation that has been deferred.
- Pension benefits are calculated on salary and bonus only; the proceeds earned on equity or other performance awards are not part of the pension calculation.

Detailed discussion

Compensation philosophy and elements

The Compensation Committee of TI’s board of directors is responsible for setting the compensation of all TI executive officers. The committee consults with the other independent directors and its compensation consultant, Pearl Meyer & Partners, before setting annual compensation for the executives. The committee chair regularly reports on committee actions at board meetings.

The primary elements of our executive compensation program are as follows:

Near-term compensation, paid in cash

Base Salary

Purpose	Basic, least variable form of compensation, designed to provide a stable source of income.
Strategy	Generally, target market median, giving appropriate consideration to job scope and tenure, to attract and retain highly qualified executives.
Terms	Paid twice monthly.

Profit Sharing

Purpose	Broad-based program designed to emphasize that each employee contributes to the company’s profitability and can share in it.
Strategy	Pay according to a formula that focuses employees on a company goal, and at a level that will affect behavior. Profit sharing is paid in addition to any performance bonus awarded for the year.
Terms	Payable in a single cash payment shortly after the end of the performance year.

As in recent years, the formula for 2019 was:

- Below 10% company-level annual operating profit as a percentage of revenue (“Margin”): no profit sharing.
- At 10% Margin: profit sharing = 2% of base salary.
- At Margin above 10%: profit sharing increases by 0.5% of base salary for each percentage point of Margin between 10% and 24%, and 1% of base salary for each percentage point of Margin above 24%. The maximum profit sharing is 20% of base salary.

In 2019, TI delivered Margin of 39.8%. As a result, all eligible employees, including executive officers, received profit sharing of 20% of base salary.

Performance Bonus

Purpose	To motivate executives and reward them according to the company's relative and absolute performance and the executive's individual performance.
Strategy	<p>Determined primarily on the basis of one-year and three-year company performance on certain measures (revenue growth percent, operating margin and total shareholder return¹) as compared with competitors and on our strategic progress in key markets and with customers. These factors have been chosen to reflect our near-term financial performance as well as our progress in building long-term shareholder value.</p> <p>The committee aims to pay total cash compensation (base salary, profit sharing and bonus) appropriately above median if company performance is above that of competitors, and pay total cash compensation appropriately below the median if company performance is below competitors.</p> <p>The committee does not rely on formulas or performance targets or thresholds. Instead, it uses its judgment based on its assessment of the factors described above.</p>
Terms	Determined by the committee and paid in a single payment after the performance year.

Long-term compensation, awarded in equity

Stock Options and Restricted Stock Units

Purpose	Alignment with shareholders; long-term focus; balance retention, particularly with respect to restricted stock units, and performance.
Strategy	We grant a combination of nonqualified stock options and restricted stock units, generally targeted at the median level of equity compensation awarded to executives in similar positions within the Comparator Group.
Terms	The terms and conditions of stock options and restricted stock units are summarized under "Outstanding equity awards at fiscal year-end 2019." The committee's grant procedures are described under "Process for equity grants."

Comparator group

The Compensation Committee considers the market level of compensation when setting the salary, bonuses and equity compensation of the executive officers. To estimate the market level of pay, the committee uses information provided by its compensation consultant and TI's Compensation and Benefits organization about compensation paid to executives in similar positions at a peer group of companies (the "Comparator Group").

The committee sets the Comparator Group and reviews it annually. In general, the Comparator Group companies (i) are U.S.-based, (ii) engage in the semiconductor business, other electronics or information technology activities or use sophisticated manufacturing processes, (iii) have executive positions comparable in complexity to those of TI and (iv) use forms of executive compensation comparable to TI's.

Shown in the table below is the Comparator Group used for the compensation decisions for 2019.

3M Company	Honeywell International Inc.
Accenture plc	Intel Corporation
Analog Devices, Inc.	Medtronic Public Limited Company
Applied Materials, Inc.	Motorola Solutions, Inc.
Broadcom Inc.	Nvidia Corporation
Cisco Systems, Inc.	QUALCOMM Incorporated
Corning Incorporated	TE Connectivity Ltd.
DXC Technology Company	Thermo Fisher Scientific Inc.
Emerson Electric Co.	Western Digital Corporation

¹ Total shareholder return refers to the percentage change in the value of a shareholder's investment in a company over the relevant time period, as determined by dividends paid and the change in the company's share price during the period. See notes to the performance summary table under "Analysis of compensation determinations – Bonus."

The committee set the Comparator Group in July 2018 for the base salary and equity compensation decisions it made in 2019. For a discussion of the factors considered by the committee in setting the Comparator Group in July 2018, please see “Comparator group” on pages 21-22 of the company’s 2019 proxy statement.

In July 2019, the committee conducted its regular review of the Comparator Group in terms of industry, revenue and market capitalization. With the advice of its compensation consultant, the committee decided to make no change to the group. Accordingly, the committee used the same Comparator Group for the bonus decisions in January 2020 relating to 2019 performance as it used to set salary and equity compensation in January 2019. The table below compares the current Comparator Group to TI in terms of revenue and market capitalization.

Company	Revenue (\$ Billion) *	Market Cap (\$ Billion) *
Intel Corporation	70.4	264.7
Cisco Systems, Inc.	52.0	205.4
Accenture plc	44.0	138.2
Honeywell International Inc.	36.9	129.2
3M Company	32.0	103.5
Medtronic Public Limited Company	30.9	153.6
Thermo Fisher Scientific Inc.	25.2	130.9
Broadcom Inc.	22.6	128.2
DXC Technology Company	20.2	9.4
QUALCOMM Incorporated	19.6	101.3
Emerson Electric Co.	18.4	47.2
Western Digital Corporation	15.6	19.5
Applied Materials, Inc.	14.6	56.9
TE Connectivity Ltd.	13.4	32.3
Corning Incorporated	11.7	23.1
Nvidia Corporation	10.0	146.8
Motorola Solutions, Inc.	7.8	27.7
Analog Devices, Inc.	6.0	44.4
Median	19.9	102.4
Texas Instruments Incorporated	14.8	121.1

* Trailing four-quarter revenue and market capitalization is as reported by Thomson Reuters on January 3, 2020.

Analysis of compensation determinations

Total compensation

Before finalizing the compensation of the executive officers, the committee reviewed all elements of compensation. The information included total cash compensation (salary, profit sharing and projected bonus), the grant date fair value of equity compensation, the impact that proposed compensation would have on other compensation elements such as pension, and a summary of benefits that the executives would receive under various termination scenarios. The review enabled the committee to see how various compensation elements relate to one another and what impact its decisions would have on the total earnings opportunity of the executives. In assessing the information, the committee did not target a specific level of total compensation or use a formula to allocate compensation among the various elements. Instead, it used its judgment in assessing whether the total was consistent with the objectives of the program. Based on this review, the committee determined that the level of compensation was appropriate.

Base salary

The committee set the 2019 rate of base salary for the following named executive officers as follows:

Officer	2019 Annual Rate	Change from 2018 Annual Rate
R. K. Templeton	\$ 1,300,000	4.0%
R. R. Lizardi	\$ 660,000	10.0%
N. Anderskouv	\$ 715,000	5.9%
R. G. Delagi	\$ 730,000	2.1%
H. Ilan	\$ 715,000	5.9%

For each of these executive officers, the committee set the 2019 base-salary rate listed above in January 2019. In keeping with its strategy, the committee targeted the annual base-salary rates to be at the estimated median level of salaries expected to be paid to similarly situated executives (considering job scope and tenure) of companies within the Comparator Group in January 2019.

The salary differences between the named executive officers were driven primarily by the market rate of pay (considering job scope and tenure) for each officer and not the application of a formula designed to maintain a differential between the officers.

Equity compensation

In 2019, the committee awarded equity compensation to each of the named executive officers listed below. The grants are shown in the table under “Grants of plan-based awards in 2019.” The grant date fair value of the awards is reflected in that table and in the “Stock Awards” and “Option Awards” columns of the 2019 summary compensation table. The table below is provided to assist the reader in comparing the grant date fair values and number of shares for each of the years shown in the summary compensation table.

Officer	Year	Grant Date Fair Value *	Stock Options (In Shares)	Restricted Stock Units (In Shares)
R. K. Templeton	2019	\$ 13,000,057	294,627	62,255
	2018	\$ 12,000,110	258,403	54,472
	2017	\$ 11,000,014	333,615	69,392
R. R. Lizardi	2019	\$ 3,000,064	67,991	14,367
	2018	\$ 2,400,097	51,681	10,895
	2017	\$ 2,000,037	60,658	12,617
		\$ 1,000,023**		12,617**
N. Anderskouv	2019	\$ 3,800,062	86,122	18,198
	2018	\$ 3,800,103	81,828	17,250
R. G. Delagi	2019	\$ 3,600,031	81,589	17,240
	2018	\$ 3,600,079	77,521	16,342
	2017	\$ 3,600,090	109,184	22,711
H. Ilan	2019	\$ 3,800,062	86,122	18,198
	2018	\$ 3,800,103	81,828	17,250

* See Notes 1 and 2 to the summary compensation table for information on how grant date fair value was calculated.

** Retention grant made in January 2017 in recognition of Mr. Lizardi's new responsibilities as CFO.

In January 2019, the committee awarded equity compensation to each of the named executive officers listed above. The committee's general objective was to award to those officers equity compensation that had a grant date fair value at approximately the median market level of the most recently disclosed equity compensation granted by the Comparator Group.

In assessing the market level, the committee considered information presented by TI's Compensation and Benefits organization (prepared using data provided by the committee's compensation consultant) on the estimated value of the awards expected to be granted to similarly situated executives (considering job scope and tenure) of companies within the Comparator Group. The award value was estimated using the same methodology used for financial accounting.

For each officer, the committee set the desired grant value. The committee decided to allocate the value equally between restricted stock units and options for each officer, to give equal emphasis to promoting retention and performance, motivating the executive and aligning interests with those of shareholders.

Before approving the grants, the committee reviewed the amount of unvested equity compensation held by the officers to assess its retention value. In making this assessment, the committee used its judgment and did not apply any formula, threshold or maximum. This review did not result in an increase or decrease of the awards.

The exercise price of the options was the closing price of TI stock on January 25, 2019, the second trading day after the company released its annual and fourth-quarter financial results for 2018. All grants were made under the Texas Instruments 2009 Long-Term Incentive Plan, which shareholders approved in April 2009 and amended in 2016.

All grants have the terms described under "Outstanding equity awards at fiscal year-end 2019." The differences in the equity awards between the named executive officers were primarily the result of differences in the applicable estimated market level of equity compensation for their positions, and not the application of any formula designed to maintain differentials between the officers.

Bonus

In January 2020, the committee set the 2019 bonus compensation for executive officers based on its assessment of 2019 performance. In setting the bonuses, the committee used the following performance measures to assess the company:

- The relative one-year and three-year performance of TI as compared with competitor companies, as measured by
 - revenue growth,
 - operating profit as a percentage of revenue,
 - total shareholder return, and
- The absolute one-year and three-year performance of TI on the above measures.

In addition, the committee considered strategic progress by reviewing TI competitiveness in key markets with core products and technologies, as well as the strength of relationships with customers.

In assessing performance, the committee did not use formulas, thresholds or multiples. Because market conditions can quickly change in our industry, thresholds established at the beginning of a year could prove irrelevant by year-end. The committee believes its approach, which assesses the company's relative performance in hindsight after year-end, gives it the insight to most effectively and critically judge results and encourages executives to pursue strategies that serve the long-term interests of the company and its shareholders.

In the comparison of relative performance, the committee used the following companies (the "competitor companies"):

Advanced Micro Devices, Inc.	NVIDIA Corporation
Analog Devices, Inc.	NXP Semiconductors N.V.
Broadcom Inc.	ON Semiconductor Corporation
Infineon Technologies AG	QUALCOMM Incorporated
Intel Corporation	Skyworks Solutions, Inc.
Marvell Technology Group Ltd.	STMicroelectronics N.V.
Maxim Integrated Products, Inc.	Xilinx, Inc.
Microchip Technology Incorporated	

To the extent the companies had not released financial results for the year or the most recent quarter, the committee based its evaluation on estimates and projections of the companies' financial results for 2019.

This list includes both broad-based and niche suppliers that operate in our key markets or offer technology that competes with our products. The committee considers annually whether the list is still appropriate in terms of revenue, market capitalization and changes in business activities of the companies. The committee made no changes to the list of competitor companies in 2019.

Assessment of 2019 performance

The committee spent extensive time in December and January assessing TI's results and strategic progress for 2019. In setting bonuses, the committee considered quantitative and qualitative measures on both an absolute and relative basis and made certain that resulting decisions were founded on both solid data and sound judgment. On an absolute basis, operating profit margin was positive and better than median relative to competitors while revenue decreased and revenue growth rate remained below median. TSR was also positive on an absolute basis and slightly below median relative to competitors. Free cash flow for the year was \$5.8 billion and 40% of revenue. In aggregate, the committee determined that while the company's strategic position and operating performance continued to be strong, the 2019 relative revenue growth rate was disappointing. Therefore, the committee targeted a bonus decrease of 5 percent for 2019, with business performance influencing individual decisions for named executive officers. Details on the committee's assessment are below.

Revenue and margin

- Annual performance
 - TI's revenue was lower in 2019 than in the prior year, decreasing by 8.9 percent, and was below the median growth rate of competitor companies. It is important to note that the median growth rate of competitor companies includes the benefit of acquisitions, whereas TI's growth rate is entirely organic.
 - Revenues for the company's core businesses of Analog and Embedded Processing declined 5.4 percent and 17.2 percent, respectively.
 - Operating profit margin was 39.8 percent, which was above the median comparison with competitors but below the prior year.
- Three-year performance
 - Compound annual revenue growth for 2017-2019 was 2.5 percent, which was below the median competitor comparison. It is important to note that the median growth rate of competitor companies includes the benefit of acquisitions, whereas TI's growth rate is entirely organic.
 - Average operating profit for 2017-2019 was 41.0 percent, which was above the median competitor comparison.

Total shareholder return (TSR)

- TSR was 39.6 percent, slightly below the median TSR as compared with competitor companies.
- The company again generated strong cash, with free cash flow at 40.3 percent of revenue.² Approximately 103 percent of free cash flow was returned to shareholders in 2019 through share repurchases and dividends. Share repurchases of \$3.0 billion reduced outstanding shares by 1.4 percent (net of stock issuances during the year). The quarterly dividend rate increased 16.9 percent (the 18th increase in the last 16 years). Share repurchases and dividend increases are important elements of TI's capital management strategy.
- The balance sheet remained robust, ending the year with cash and short-term investments of \$5.4 billion.
- The three-year compound annual growth rate for TSR was 23.9 percent, which was above the median competitor comparison.

Strategic progress

- The company's business model is designed around four sustainable competitive advantages that in combination put us in a unique class of companies. These advantages include (i) manufacturing and technology, (ii) breadth of differentiated product portfolio, (iii) channel reach of sales force and TI.com and (iv) diversity and longevity of product, market and customer positions. In 2019, the company continued to strengthen and leverage these advantages.
- The company's strategic focus is on analog and embedded processing, with a particular emphasis on designing and selling those products into the industrial and automotive markets, which we believe represent the best growth opportunities. Focused investments in these areas continue to provide the foundation for strong results in the near and long terms.

² Free cash flow was calculated by subtracting Capital expenditures from the GAAP-based Cash flows from operating activities. For a reconciliation to GAAP, see Appendix A to this proxy statement.

- TI's broad analog and embedded processing product portfolio includes tens of thousands of products, with more products added each year, offering strong differentiation and longevity. In 2019, greater than 90 percent of TI's revenue came from Analog and Embedded Processing semiconductors.
- We believe the industrial and automotive markets represent the best growth opportunity for the industry for the foreseeable future because of the increasing semiconductor content in these markets. In 2019, approximately 57 percent of TI's revenue came from industrial and automotive markets, up from approximately 56 percent in 2018.
- TI's revenue continues to come from a diverse base of thousands of applications. This is an intentional strategy that prevents dependence on a single market, customer or product.
- Over the past several years, TI has been investing in new capabilities to establish closer direct relationships with customers to provide better insight into their needs and allow TI to provide better service and greater assurance of supply, among other benefits. As part of this strategy, in 2019, TI made further progress in evolving its distribution network to better align with establishing more direct relationships with customers. As TI expands its direct customer relationships over the next several years, the company will not have as much business flowing through the distribution channel and therefore will require fewer distributors. TI's investments in new and improved capabilities to directly support our customers include website and e-commerce enhancements as well as inventory consignment programs and order fulfillment services.
- In 2019, the company announced plans to expand its 300-millimeter footprint by building the next factory in Richardson, Texas. TI's in-house capability to manufacture high volumes of Analog semiconductors on 300-millimeter wafers remains a competitive advantage due to the inherent cost advantage associated with 300-millimeter technology versus prior generation. This cost advantage is the result of more chips being produced per wafer, thereby improving margins and cash generation.
- In total, the committee determined that TI's strategic position was strengthened by management's decisions and actions in 2019.

Performance summary

	1-Year	3-Year
Revenue growth: total TI	-8.9%	2.5% CAGR
Operating margin	39.8%	41.0% average
Free cash flow as % of revenue	40.3%	36.6% average
% of free cash flow returned to shareholders	102.9%	110.6% average
Increase in quarterly dividend rate	16.9%	80.0%
Total shareholder return (TSR)	39.6%	23.9%

CAGR (compound annual growth rate) is calculated using the formula (Ending Value/Beginning Value)^{1/number of years} minus 1.

One-year and three-year TSR percentages are obtained from a report generated using a subscription service to Equilar, an executive compensation and corporate governance data firm.

Before setting the bonuses for the named executive officers, the committee considered the officers' individual performance. The performance of Mr. Templeton was judged according to the performance of the company. For the other officers, the committee considered the factors described below in assessing individual performance. In making this assessment, the committee did not apply any formula or performance targets.

Mr. Lizardi is the chief financial officer. The committee noted the financial management of the company.

Mr. Anderskouv is responsible for our power product line within our analog business. The committee noted the financial performance and strategic position of this product line.

Mr. Delagi was responsible for our embedded processing business prior to announcing his retirement plans. The committee noted the financial performance and strategic position of these product lines.

Mr. Ilan is responsible for our signal chain product line within our analog business. The committee noted the financial performance and strategic position of this product line.

The bonuses awarded for 2019 performance are shown in the table below. The differences in the amounts awarded to the named executive officers were primarily the result of differences in the officers' level of responsibility and related performance and the applicable market level of total cash compensation expected to be paid to similarly situated officers at companies within the Comparator Group.

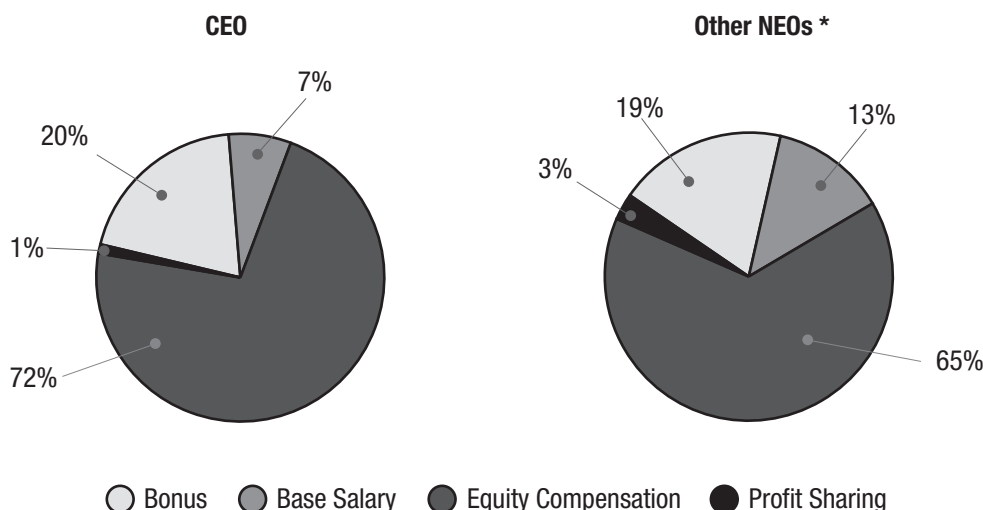
Results of the compensation decisions

Results of the compensation decisions made by the committee relating to the named executive officers are summarized in the following table. This table is provided as a supplement to the summary compensation table for investors who may find it useful to see the data presented in this form. Although the committee does not target a specific level of total compensation, it considers information similar to that in the table to ensure that the sum of these elements is, in its judgment, in a reasonable range.

Officer	Year	Salary (Annual Rate)	Profit Sharing	Bonus	Equity Compensation (Grant Date Fair Value)	Total
R. K. Templeton	2019	\$ 1,300,000	\$ 259,167	\$ 3,550,000	\$ 13,000,057	\$ 18,109,224
	2018	\$ 1,250,000	\$ 226,250	\$ 3,800,000	\$ 12,000,110	\$ 17,276,360
	2017	\$ 1,190,000	\$ 237,601	\$ 3,625,000	\$ 11,000,014	\$ 16,052,615
R. R. Lizardi	2019	\$ 660,000	\$ 131,000	\$ 950,000	\$ 3,000,065	\$ 4,741,065
	2018	\$ 600,000	\$ 118,333	\$ 1,000,000	\$ 2,400,097	\$ 4,118,430
	2017	\$ 500,000	\$ 97,667	\$ 850,000	\$ 3,000,060	\$ 4,447,727
N. Anderskov	2019	\$ 715,000	\$ 142,333	\$ 1,140,000	\$ 3,800,062	\$ 5,797,395
	2018	\$ 675,000	\$ 133,750	\$ 1,200,000	\$ 3,800,103	\$ 5,808,853
R. G. Delagi	2019	\$ 730,000	\$ 145,750	\$ 980,000	\$ 3,600,031	\$ 5,455,781
	2018	\$ 715,000	\$ 142,750	\$ 1,150,000	\$ 3,600,079	\$ 5,607,829
	2017	\$ 700,000	\$ 139,750	\$ 1,100,000	\$ 3,600,090	\$ 5,539,840
H. Ilan	2019	\$ 715,000	\$ 142,333	\$ 1,140,000	\$ 3,800,062	\$ 5,797,395
	2018	\$ 675,000	\$ 133,750	\$ 1,200,000	\$ 3,800,103	\$ 5,808,853

This table shows the annual rate of base salary for each named executive officer. In the summary compensation table, the "Salary" column shows the actual salary paid in the year. This table has separate columns for profit sharing and bonus. In the summary compensation table, profit sharing and bonus are aggregated in the column for "Non-Equity Incentive Plan Compensation," in accordance with SEC requirements. Please see Notes 2 and 3 to the summary compensation table for information about how grant date fair value was calculated.

For Messrs. Templeton and Lizardi, the "Total" for 2019 was higher than for 2018 primarily due to the higher equity awards in 2019, reflecting an effort to align with the projected market range for similarly situated executives in our comparator group. The compensation decisions shown above resulted in the following 2019 compensation mix for the named executive officers:



* Average data for the named executive officers other than Mr. Templeton

Equity dilution

The Compensation Committee's goal is to keep net annual dilution from equity compensation under 2 percent. "Net annual dilution" means the number of shares under equity awards granted by the committee each year to all employees (net of award forfeitures) as a percentage of the shares of the company's outstanding common stock. Equity awards granted in 2019 resulted in 0.5 percent net annual dilution.

Process for equity grants

The Compensation Committee makes grant decisions for equity compensation at its January meeting each year. The dates on which these meetings occur are generally set three years in advance. The January meetings of the board and the committee generally occur in the week or two before we announce our financial results for the previous quarter and year.

On occasion, the committee may grant stock options or restricted stock units to executives at times other than January. For example, it has done so in connection with job promotions and for purposes of retention.

We do not back-date stock options or restricted stock units. We do not accelerate or delay the release of information due to plans for making equity grants.

If the committee meeting falls in the same month as the release of the company's financial results, the committee's practice is to make grants effective (i) on the second trading day after the results have been released or (ii) on the meeting day if later. In other months, its practice is to make them effective on the day of committee action. The exercise price of stock options is the closing price of TI stock on the effective date of the grant.

Recoupment policy

The committee has a policy concerning recoupment ("claw back") of executive bonuses and equity compensation. Under the policy, in the event of a material restatement of TI's financial results due to misconduct, the committee will review the facts and circumstances and take the actions it considers appropriate with respect to the compensation of any executive officer whose fraud or willful misconduct contributed to the need for such restatement. Such action may include (a) seeking reimbursement of any bonus paid to such officer exceeding the amount that, in the judgment of the committee, would have been paid had the financial results been properly reported and (b) seeking to recover profits received by such officer during the 12 months after the restated period under equity compensation awards. All determinations by the committee with respect to this policy are final and binding on all interested parties.

Most recent stockholder advisory vote on executive compensation

In April 2019, our shareholders cast an advisory vote on the company's executive compensation decisions and policies as disclosed in the proxy statement issued by the company in March 2019. Approximately 93 percent of the shares voted on the matter were cast in support of the compensation decisions and policies as disclosed. The committee considered this result and determined that it was not necessary at this time to make any material changes to the company's compensation policies and practices in response to the advisory vote.

Benefits

Retirement plans

The executive officers participate in our retirement plans under the same rules that apply to other U.S. employees. We maintain these plans to have a competitive benefits program and for retention.

Like other established U.S. manufacturers, we have had a U.S. qualified defined benefit pension plan for many years. At its origin, the plan was designed to be consistent with those offered by other employers in the diverse markets in which we operated, which at the time included consumer and defense electronics, as well as semiconductors and materials products. In order to limit the cost of the plan, we closed the plan to new participants in 1997. We gave U.S. employees as of November 1997 the choice to continue participating in the plan, or to have their plan benefits frozen (i.e., no benefit increase attributable to years of service or change in eligible earnings) and begin participating in an enhanced defined contribution plan. Mr. Templeton chose not to continue participating in the defined benefit plan. As a result, his benefits under that plan were frozen in 1997, and he participates in the enhanced defined contribution plan described below. Mr. Delagi continued his participation in the defined benefit pension plan until his retirement on February 5, 2020. Messrs. Lizardi, Anderskouv and Ilan joined the company after 1997 and are not eligible to participate in the defined benefit plan.

The Internal Revenue Code (IRC) imposes certain limits on the retirement benefits that may be provided under a qualified plan. To maintain the desired level of benefits, we have non-qualified defined benefit pension plans for participants in the qualified pension plan. Under the non-qualified plans, participants receive benefits that would ordinarily be paid under the qualified pension plan but for the limitations under the IRC. For additional information about the defined benefit plans, please see “2019 pension benefits.”

Employees accruing benefits in the qualified pension plan, including Mr. Delagi prior to his retirement, also are eligible to participate in a defined contribution plan that provides employer matching contributions. All other employees are eligible to participate in the enhanced defined contribution plan, in which Messrs. Templeton, Lizardi, Anderskouv and Ilan participate. This plan provides for (i) a fixed employer contribution plus an employer matching contribution for employees hired on or before December 31, 2003 or (ii) an employer matching contribution for employees hired after December 31, 2003.

In general, if an employee who participates in the pension plan (including an employee whose benefits are frozen as described above) dies after having met the requirements for normal or early retirement, his or her beneficiary will receive a benefit equal to the lump-sum amount that the participant would have received if he or she had retired before death. Having already reached the age of 55 and at least 20 years of employment, Mr. Templeton is eligible for early retirement under the pension plans. Mr. Delagi retired effective February 5, 2020, so the lump sum payment option is no longer available to his beneficiary.

Because benefits under the qualified and non-qualified defined benefit pension plans are calculated on the basis of eligible earnings (salary and bonus), an increase in salary or bonus may result in an increase in benefits under the plans. Salary or bonus increases for Mr. Templeton do not result in greater benefits for him under the company's defined benefit pension plans because his benefits under those plans were frozen in 1997. Messrs. Lizardi, Anderskouv and Ilan do not participate in the company's defined benefit pension plans. The committee considers the potential effect on the executives' retirement benefits when it sets salary and performance bonus levels.

Deferred compensation

Any U.S. employee whose base salary and management responsibility exceed a certain level may defer the receipt of a portion of his or her salary, bonus and profit sharing. Rules of the U.S. Department of Labor require that this plan be limited to a select group of management or highly compensated employees. The plan allows employees to defer the receipt of their compensation in a tax-efficient manner. Eligible employees include, but are not limited to, the executive officers. We have the plan to be competitive with the benefits packages offered by other companies.

The executive officers' deferred compensation account balances are unsecured and all amounts remain part of the company's operating assets. The value of the deferred amounts tracks the performance of investment alternatives selected by the participant. These alternatives are identical to those offered to participants in the defined contribution plans described above. The company does not guarantee any minimum return on the amounts deferred. In accordance with SEC rules, no earnings on deferred compensation are shown in the summary compensation table for 2019 because no “above market” rates were earned on deferred amounts in that year.

Employee stock purchase plan

We have an employee stock purchase plan. Under the plan, which our shareholders approved, all employees in the U.S. and certain other countries may purchase a limited number of shares of the company's common stock at a 15 percent discount. The plan is designed to offer the broad-based employee population an opportunity to acquire an equity interest in the company and thereby align their interests with those of shareholders. Consistent with our general approach to benefit programs, executive officers are also eligible to participate.

Health-related benefits

Executive officers are eligible under the same plans as all other U.S. employees for medical, dental, vision, disability and life insurance. These benefits are intended to be competitive with benefits offered in the semiconductor industry.

Other benefits

Executive officers receive only a few benefits that are not available to all other U.S. employees. They are eligible for a company-paid physical and financial counseling. In addition, the board of directors has determined that for security reasons, it is in the company's interest to allow Mr. Templeton, at his option, to use company aircraft for personal air travel. Please see Footnote 6 of the summary compensation table for 2019 and “Potential payments upon termination or change in control – Termination – Perquisites” for further details. The company provides no tax gross-ups for perquisites to any of the executive officers.

Compensation following employment termination or change in control

None of the executive officers has an employment contract. Executive officers are eligible for benefits on the same terms as other U.S. employees upon termination of employment or a change in control of the company. The current programs are described under “Potential payments upon termination or change in control.” None of the few additional benefits that the executive officers receive continue after termination of employment, except that financial counseling is provided for a transition period following retirement. The committee reviews the potential impact of these programs before finalizing the annual compensation for the named executive officers. The committee did not raise or lower compensation for 2019 based on this review.

The Texas Instruments 2009 Long-Term Incentive Plan generally establishes double-trigger change-in-control terms for grants made in 2010 and later years. Under those terms, options become fully exercisable and shares are issued under restricted stock unit awards (to the extent permitted by Section 409A of the IRC) if the grantee is involuntarily terminated within 24 months after a change in control of TI. These terms are intended to encourage employees to remain with the company through a transaction while reducing employee uncertainty and distraction in the period leading up to any such event.

Stock ownership guidelines and policy against hedging

Our board of directors has established stock ownership guidelines for executive officers. The guideline for the CEO is four times base salary or 125,000 shares, whichever is less. The guideline for other executive officers is three times base salary or 25,000 shares, whichever is less. Executive officers have five years from their election as executive officers to reach these targets. Directly owned shares and restricted stock units count toward satisfying the guidelines.

Short sales of TI stock by our executive officers are prohibited. It is against TI policy for any employee, including an executive officer, to engage in trading in “puts” (options to sell at a fixed price), “calls” (similar options to buy), or other options or hedging techniques on TI stock.

Consideration of tax and accounting treatment of compensation

Current tax law limits the tax deductibility of annual compensation paid to any publicly held corporation’s “covered employees,” which includes all of our named executive officers. The Compensation Committee considers the impact of this deductibility limit as one factor in its determination of compensation.

When setting equity compensation, the committee considers the cost for financial reporting purposes of equity compensation it intends to grant. Its consideration of the cost of grants made in 2019 is discussed under “Analysis of compensation determination for 2019 – Equity compensation.”

Compensation Committee report

The Compensation Committee of the board of directors has furnished the following report:

The committee has reviewed and discussed the Compensation Discussion and Analysis (CD&A) with the company’s management. Based on that review and discussion, the committee has recommended to the board of directors that the CD&A be included in the company’s annual report on Form 10-K for 2019 and the company’s proxy statement for the 2020 annual meeting of stockholders.

Pamela H. Patsley, Chair

Carrie S. Cox

Martin S. Craighead

2019 summary compensation table

The table below shows the compensation of the CEO, the CFO and each of the other three most highly compensated individuals who were executive officers during 2019 (collectively called the “named executive officers” (NEOs)) for services in all capacities to the company in 2019.

Name and Principal Position	Year	Salary (\$)	Stock Awards (\$ (2))	Option Awards (\$ (3))	Non-Equity Incentive Plan Compensation (\$ (4))	Change in Pension Value and Nonqualified Deferred Compensation Earnings (\$ (5))	All Other Compensation (\$ (6))	Total (\$)
Richard K. Templeton	2019	\$ 1,295,833	\$ 6,500,045	\$ 6,500,012	\$ 3,809,167	\$ 202,588	\$ 326,162	\$ 18,633,807
Chairman, President &	2018	\$ 1,131,252	\$ 6,000,091	\$ 6,000,019	\$ 4,026,250	—	\$ 418,612	\$ 17,576,224
Chief Executive Officer	2017	\$ 1,188,004	\$ 5,500,010	\$ 5,500,004	\$ 3,862,601	\$ 166,278	\$ 329,825	\$ 16,546,722
Rafael R. Lizardi	2019	\$ 655,000	\$ 1,500,058	\$ 1,500,006	\$ 1,081,000	—	\$ 125,671	\$ 4,861,735
Senior Vice President &	2018	\$ 591,667	\$ 1,200,084	\$ 1,200,013	\$ 1,118,333	—	\$ 77,072	\$ 4,187,169
Chief Financial Officer	2017	\$ 488,333	\$ 2,000,047	\$ 1,000,013	\$ 947,667	—	\$ 60,814	\$ 4,496,874
Niels Anderskov	2019	\$ 711,667	\$ 1,900,053	\$ 1,900,009	\$ 1,282,333	—	\$ 103,898	\$ 5,897,960
Senior Vice President	2018	\$ 668,750	\$ 1,900,088	\$ 1,900,015	\$ 1,333,750	—	\$ 89,458	\$ 5,892,061
R. Gregory Delagi (1)	2019	\$ 728,750	\$ 1,800,028	\$ 1,800,003	\$ 1,125,750	\$ 1,954,075	\$ 6,045	\$ 7,414,651
Senior Vice President	2018	\$ 713,750	\$ 1,800,071	\$ 1,800,008	\$ 1,292,750	\$ 1,877	\$ 5,500	\$ 5,613,956
	2017	\$ 698,750	\$ 1,800,074	\$ 1,800,016	\$ 1,239,750	\$ 1,491,494	\$ 16,492	\$ 7,046,576
Haviv Ilan	2019	\$ 711,667	\$ 1,900,053	\$ 1,900,009	\$ 1,282,333	—	\$ 68,153	\$ 5,862,215
Senior Vice President	2018	\$ 668,750	\$ 1,900,088	\$ 1,900,015	\$ 1,333,750	—	\$ 51,813	\$ 5,854,416

(1) Mr. Delagi retired from the company effective February 5, 2020.

- (2) Shown is the aggregate grant date fair value of restricted stock unit (RSU) awards calculated in accordance with ASC 718. The discussion of the assumptions used for purposes of the valuation of the awards granted in 2019 appears in Note 3 to the 2019 financial statements. For a description of the grant terms, see the discussion following the outstanding equity awards at fiscal year-end 2019 table. The discussion of the assumptions used for purposes of the valuation of the awards granted in 2018 and 2017 appears in Notes 3 and 4 respectively to the financial statements in TI’s annual report on Form 10-K for the year ended December 31, 2018 (2018 financial statements), and the financial statements in TI’s annual report on Form 10-K for the year ended December 31, 2017 (2017 financial statements), respectively.
- (3) Shown is the aggregate grant date fair value of options calculated in accordance with ASC 718. The discussion of the assumptions used for purposes of the valuation of options granted in 2019 appears in Note 3 to the 2019 financial statements. For a description of the grant terms, see the discussion following the outstanding equity awards at fiscal year-end 2019 table. The discussion of the assumptions used for purposes of the valuation of the awards granted in 2018 and 2017 appears in Notes 3 and 4 respectively to the 2018 and 2017 financial statements, respectively.
- (4) Consists of performance bonuses and profit sharing for 2019. See “Analysis of compensation determinations for 2019 – Results of the compensation decisions” for the amounts of bonus and profit sharing paid to each of the named executive officers for 2019.
- (5) The company does not pay above-market earnings on deferred compensation. Therefore, no amounts are reported in this column for deferred compensation. The amounts in this column represent the change in the actuarial value of the named executive officers’ benefits under the qualified defined benefit pension plan (TI Employees Pension Plan) and the non-qualified defined benefit pension plans (TI Employees Non-Qualified Pension Plan and TI Employees Non-Qualified Pension Plan II) from December 31, 2018, through December 31, 2019. This “change in the actuarial value” is the difference between the 2018 and 2019 present value of the pension benefit accumulated as of year-end by the named executive officer, assuming that benefit is not paid until age 65. Mr. Templeton’s benefits under the company’s pension plans were frozen as of December 31, 1997. Messrs. Lizardi, Anderskov and Ilan do not participate in any of the company’s defined benefit pension plans.

- (6) Consists of (i) the amounts in the table below, which result from programs available to all eligible U.S. employees, and (ii) perquisites and personal benefits that meet the disclosure thresholds established by the SEC and are detailed in the paragraph below.

Name	401(k) Contribution	Defined Contribution Retirement Plan (a)	Unused Vacation Time (b)
R. K. Templeton	\$ 11,200	\$ 281,644	—
R. R. Lizardi	\$ 11,200	\$ 80,206	—
N. Anderskouv	\$ 11,200	\$ 92,666	—
R. G. Delagi	\$ 5,600	—	\$ 413
H. Ilan	\$ 11,200	\$ 56,921	—

- (a) Consists of (i) contributions under the company's enhanced defined contribution retirement plan of \$5,600 for Messrs. Templeton, Lizardi and Anderskouv and (ii) an additional amount of \$276,044 for Mr. Templeton, \$74,606 for Mr. Lizardi, \$87,066 for Mr. Anderskouv, and \$56,921 for Mr. Ilan, applied by TI to offset IRC limitations on amounts that could be contributed to the enhanced defined contribution retirement plan, which amount is also shown in the 2019 non-qualified deferred compensation table.
- (b) For Mr. Delagi, represents payment for unused vacation time that could not be carried forward.

The perquisites and personal benefits are: \$33,285 for Mr. Templeton and \$34,233 for Mr. Lizardi, consisting of financial counseling, an executive physical, personal use of company aircraft (\$20,099 for Mr. Templeton and \$23,174 for Mr. Lizardi) and a one-time payment made to all employees who participated in the company's dental plan. Financial counseling and an executive physical were made available to the other named executive officers, but the amounts attributable to those officers were below the disclosure thresholds.

Grants of plan-based awards in 2019

The following table shows the grants of plan-based awards to the named executive officers in 2019.

Name	Grant Date	Date of Committee Action	All Other Stock Awards: Number of Shares of Stock or Units (#) (2)	All Other Option Awards: Number of Securities Underlying Options (#) (3)	Exercise or Base Price of Option Awards (\$/Sh) (4)	Grant Date Fair Value of Stock and Option Awards (5)
R. K. Templeton	1/25/19 (1)	1/17/19		294,627	\$ 104.41	\$ 6,500,012
	1/25/19 (1)	1/17/19	62,255			\$ 6,500,045
R. R. Lizardi	1/25/19 (1)	1/17/19		67,991	\$ 104.41	\$ 1,500,006
	1/25/19 (1)	1/17/19	14,367			\$ 1,500,058
N. Anderskouv	1/25/19 (1)	1/17/19		86,122	\$ 104.41	\$ 1,900,009
	1/25/19 (1)	1/17/19	18,198			\$ 1,900,053
R. G. Delagi	1/25/19 (1)	1/17/19		81,589	\$ 104.41	\$ 1,800,003
	1/25/19 (1)	1/17/19	17,240			\$ 1,800,028
H. Ilan	1/25/19 (1)	1/17/19		86,122	\$ 104.41	\$ 1,900,009
	1/25/19 (1)	1/17/19	18,198			\$ 1,900,053

- (1) In accordance with the grant policy of the Compensation Committee of the board (described under "Process for equity grants"), the grants became effective on the second trading day after the company released its financial results for the fourth-quarter and year 2018. The company released these results on January 23, 2019.
- (2) The stock awards granted to the named executive officers in 2019 were RSU awards. These awards were made under the company's 2009 Long-Term Incentive Plan. For information on the terms and conditions of these RSU awards, see the discussion following the outstanding equity awards at fiscal year-end 2019 table.
- (3) The options were granted under the company's 2009 Long-Term Incentive Plan. For information on the terms and conditions of these options, see the discussion following the outstanding equity awards at fiscal year-end 2019 table.
- (4) The exercise price of the options is the closing price of TI common stock on January 25, 2019.

- (5) Shown is the aggregate grant date fair value computed in accordance with ASC 718 for stock and option awards in 2019. The discussion of the assumptions used for purposes of the valuation appears in Note 3 to the 2019 financial statements.

None of the options or other equity awards granted to the named executive officers was repriced or modified by the company.

For additional information regarding TI's equity compensation grant practices, see the Compensation Discussion and Analysis.

Outstanding equity awards at fiscal year-end 2019

The following table shows the outstanding equity awards for each of the named executive officers as of December 31, 2019.

Name	Option Awards				Stock Awards	
	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price (\$)	Option Expiration Date	Number of Shares or Units of Stock That Have Not Vested (#)	Market Value of Shares or Units of Stock That Have Not Vested (\$)(1)
R. K. Templeton	—	294,627 (2)	\$ 104.41	1/25/2029	62,255 (6)	\$ 7,986,694
	64,600	193,803 (3)	\$ 110.15	1/25/2028	54,472 (7)	\$ 6,988,213
	166,807	166,808 (4)	\$ 79.26	1/26/2027	69,392 (8)	\$ 8,902,300
	367,167	122,390 (5)	\$ 52.93	1/29/2026	92,576 (9)	\$ 11,876,575
	516,440	—	\$ 53.94	1/28/2025	—	—
	602,692	—	\$ 44.09	1/23/2024	—	—
	525,000	—	\$ 32.80	1/25/2023	—	—
R. R. Lizardi	—	67,991 (2)	\$ 104.41	1/25/2029	14,367 (6)	\$ 1,843,142
	12,920	38,761 (3)	\$ 110.15	1/25/2028	10,895 (7)	\$ 1,397,720
	—	30,329 (4)	\$ 79.26	1/26/2027	12,617 (8)	\$ 1,618,635
	—	7,494 (5)	\$ 52.93	1/29/2026	12,617 (8)	\$ 1,618,635
	—	—	—	—	5,668 (9)	\$ 727,148
N. Anderskov	—	86,122 (2)	\$ 104.41	1/25/2029	18,198 (6)	\$ 2,334,621
	20,457	61,371 (3)	\$ 110.15	1/25/2028	17,250 (7)	\$ 2,213,003
	—	53,076 (4)	\$ 79.26	1/26/2027	22,080 (8)	\$ 2,832,643
	—	31,222 (5)	\$ 52.93	1/29/2026	23,617 (9)	\$ 3,029,825
R. G. Delagi	—	81,589 (2)	\$ 104.41	1/25/2029	17,240 (6)	\$ 2,211,720
	19,380	58,141 (3)	\$ 110.15	1/25/2028	16,342 (7)	\$ 2,096,515
	54,592	54,592 (4)	\$ 79.26	1/26/2027	22,711 (8)	\$ 2,913,594
	134,878	44,960 (5)	\$ 52.93	1/29/2026	34,008 (9)	\$ 4,362,886
H. Ilan	—	86,122 (2)	\$ 104.41	1/25/2029	18,198 (6)	\$ 2,334,621
	20,457	61,371 (3)	\$ 110.15	1/25/2028	17,250 (7)	\$ 2,213,003
	53,075	53,076 (4)	\$ 79.26	1/26/2027	22,080 (8)	\$ 2,832,643
	—	31,222 (5)	\$ 52.93	1/29/2026	23,617 (9)	\$ 3,029,825

- (1) Calculated by multiplying the number of RSUs by the closing price of TI common stock on December 31, 2019 (\$128.29).
- (2) One-quarter of the shares became exercisable on January 25, 2020, and one-third of the remaining shares become exercisable on each of January 25, 2021, January 25, 2022, and January 25, 2023.
- (3) One-third of the shares became exercisable on January 25, 2020, and one-half of the remaining shares become exercisable on each of January 25, 2021, and January 25, 2022.
- (4) One-half of the shares became exercisable on January 26, 2020, and the remaining one-half become exercisable on January 26, 2021.
- (5) Became fully exercisable on January 29, 2020.
- (6) Vesting date is January 31, 2023.
- (7) Vesting date is January 31, 2022.
- (8) Vesting date is February 1, 2021.
- (9) Vested on January 31, 2020.

Option awards

The “Option Awards” shown in the table above are non-qualified stock options, each of which represents the right to purchase shares of TI common stock at the stated exercise price. The exercise price is the closing price of TI common stock on the grant date. The term of each option is 10 years unless the option is terminated earlier pursuant to provisions summarized in the chart below and in the paragraph following the chart. Options become exercisable in increments of 25 percent per year beginning on the first anniversary of the date of the grant. The chart below shows the termination provisions relating to stock options outstanding as of December 31, 2019. The Compensation Committee of the board of directors established these termination provisions to promote employee retention while offering competitive terms.

	Employment Termination due to Death or Permanent Disability or at Least 6 Months after Grant When Retirement Eligible *	Employment Termination (at Least 6 Months after Grant) with 20 Years of Credited Service, but Not Retirement Eligible **	Employment Termination for Cause	Other Circumstances of Employment Termination
Unexercisable portion of option	Continues	Stops	Stops	Stops
Exercisable portion of option	Remains exercisable to end of term	Remains exercisable to end of term	Terminates	Remains exercisable for 30 days

* Retirement eligibility is defined for purposes of equity awards made after 2012 as at least age 55 with 10 or more years of TI service or at least age 65. For awards made before 2013, the definition of normal or early retirement eligibility in the relevant pension plan applies (see “2019 pension benefits”).

** This provision is not applicable to grants made after 2012.

Options may be cancelled if, during the two years after employment termination, the grantee competes with TI or solicits TI employees to work for another company, or if the grantee discloses TI trade secrets. In addition, for options received while the grantee was an executive officer, the company may reclaim (or “claw back”) profits earned under grants if the officer engages in such conduct. These provisions are intended to strengthen retention and provide a reasonable remedy to TI in case of competition, solicitation of our employees or disclosure of our confidential information.

Options granted after 2009 become fully vested if the grantee is involuntarily terminated from employment with TI (other than for cause) within 24 months after a change in control of TI. “Change in control” is defined as provided in the Texas Instruments 2009 Long-Term Incentive Plan and occurs upon (i) acquisition of more than 50 percent of the voting stock or at least 80 percent of the assets of TI or (ii) change of a majority of the board of directors in a 12-month period unless a majority of the directors then in office endorsed the appointment or election of the new directors (“Plan definition”). These terms are intended to reduce employee uncertainty and distraction in the period leading up to a change in control, if such an event were to occur. For options granted before 2010, the stock option terms provide that upon a change in control of TI, the option becomes fully vested to the extent it is then outstanding; and if employment termination (except for cause) has occurred within 30 days before the change in control, the change in control is deemed to have occurred first. “Change in control” is defined in these pre-2010 options as (i) acquisition of 20 percent of TI common stock other than through a transaction approved by the board of directors, or (ii) change of a majority of the board of directors in a 24-month period unless a majority of the directors then in office have elected or nominated the new directors (together, the “pre-2010 definition”).

Stock awards

The “Stock Awards” column in the table of outstanding equity awards at fiscal year-end 2019 are RSU awards. Each RSU represents the right to receive one share of TI common stock on a stated date (the “vesting date”) unless the award is terminated earlier under terms summarized below. In general, the vesting date is approximately four years after the grant date. Each RSU includes the right to receive dividend equivalents, which are paid annually in cash at a rate equal to the amount paid to stockholders in dividends.

The table below shows the termination provisions of RSUs outstanding as of December 31, 2019.

Employment Termination Due to Death or Permanent Disability or at Least 6 Months after Grant When Retirement Eligible	Employment Termination For Cause	Other Circumstances of Employment Termination
Vesting continues; shares are paid at the scheduled vesting date	Grant cancels; no shares are issued	Grant cancels; no shares are issued

These termination provisions are intended to promote retention. All RSU awards contain cancellation and clawback provisions like those described above for stock options. The terms provide that, to the extent permitted by Section 409A of the IRC, the award vests upon involuntary termination of TI employment within 24 months after a change in control. Change in control is the Plan definition. These cancellation, clawback and change-in-control terms are intended to conform RSU terms with those of stock options (to the extent permitted by the IRC) and to achieve the objectives described above in the discussion of stock options.

In addition to the “Stock Awards” shown in the outstanding equity awards at fiscal year-end 2019 table, Mr. Templeton holds an award of RSUs that was granted in 1995. The award, for 120,000 shares of TI common stock, vested in 2000. Under the award terms, the shares will be issued to Mr. Templeton in March of the year after his termination of employment for any reason. These terms were designed to provide a tax benefit to the company by postponing the related compensation expense until it was likely to be fully deductible. In accordance with SEC requirements, this award is reflected in the 2019 non-qualified deferred compensation table.

2019 option exercises and stock vested

The following table lists the number of shares acquired and the value realized as a result of option exercises by the named executive officers in 2019 and the value of any RSUs that vested in 2019. For option exercises, the value realized is calculated by multiplying the number of shares acquired by the difference between the exercise price and the market price of TI common stock on the exercise date. For RSUs, the value realized is calculated by multiplying the number of RSUs that vested by the market price of TI common stock on the vesting date.

Name	Option Awards		Stock Awards	
	Number of Shares Acquired on Exercise (#)	Value Realized on Exercise (\$)	Number of Shares Acquired on Vesting (#)	Value Realized on Vesting (\$)
R. K. Templeton	475,00	\$ 40,318,250	90,842	\$ 9,278,602
R. R. Lizardi	104,198	\$ 6,965,165	4,172	\$ 426,128
N. Anderskov	117,234	\$ 5,447,933	23,174	\$ 2,366,992
R. G. Delagi	948,610	\$ 83,024,825	33,371	\$ 3,408,514
H. Ilan	64,159	\$ 4,100,137	23,174	\$ 2,366,992

2019 pension benefits

The following table shows the present value as of December 31, 2019, of the benefit of the named executive officers under our qualified defined benefit pension plan (TI Employees Pension Plan) and non-qualified defined benefit pension plans (TI Employees Non-Qualified Pension Plan (which governs amounts earned before 2005) and TI Employees Non-Qualified Pension Plan II (which governs amounts earned after 2004)). In accordance with SEC requirements, the amounts shown in the table do not reflect any named executive officer’s retirement eligibility or any increase in benefits that may result from the named executive officer’s continued employment after December 31, 2019.

Name (1)	Plan Name	Number of Years Credited Service (#)	Present Value of Accumulated Benefit (\$)	Payments During Last Fiscal Year (\$)
R. K. Templeton (2)	TI Employees Pension Plan	16 (3)	\$ 904,750 (6)	—
	TI Employees Non-Qualified Pension Plan	16 (3)	\$ 421,971 (6)	—
	TI Employees Non-Qualified Pension Plan II	16 (5)	\$ 239,993 (6)	—
R. G. Delagi	TI Employees Pension Plan	34 (3)	\$ 1,378,652 (6)	—
	TI Employees Non-Qualified Pension Plan	19 (4)	\$ 260,349 (6)	—
	TI Employees Non-Qualified Pension Plan II	34 (5)	\$ 7,841,814 (6)	—

- (1) Messrs. Lizardi, Anderskouv and Ilan do not participate in any of the company's defined benefit pension plans because they joined TI after these plans were closed to new participants.
- (2) In 1997, TI's U.S. employees were given the choice between continuing to participate in the defined benefit pension plans or participating in a new enhanced defined contribution retirement plan. Mr. Templeton chose to participate in the defined contribution plan. Accordingly, his accrued pension benefits under the qualified and non-qualified plans were frozen (i.e., he will experience no increase attributable to years of service or change in eligible earnings) as of December 31, 1997. Contributions to the defined contribution plan for Mr. Templeton's benefits are included in the 2019 summary compensation table.
- (3) Credited service began on the date the officer became eligible to participate in the plan. Eligibility to participate began on the earlier of 18 months of employment, or January 1 following the completion of one year of employment. Accordingly, Mr. Templeton and Mr. Delagi have been employed by TI for longer than the years of credited service shown above.
- (4) Credited service began on the date the named executive officer became eligible to participate in the TI Employees Pension Plan as described in Note 3 and ceased at December 31, 2004.
- (5) Credited service began on the date the named executive officer became eligible to participate in the TI Employees Pension Plan as described in Note 3.
- (6) The assumptions and valuation methods used to calculate the present value of the accumulated pension benefits shown are the same as those used by TI for financial reporting purposes and are described in Note 8 to the 2019 financial statements, except that a named executive officer's retirement is assumed (in accordance with SEC rules) for purposes of this table to occur at age 65 and no assumption for termination prior to that date is used. The amount of the lump-sum benefit earned as of December 31, 2019, is determined using either (i) the Pension Benefit Guaranty Corporation (PBGC) interest assumption of 0.50 percent or (ii) the Pension Protection Act of 2006 (PPA) corporate bond yield interest assumption of 3.61 percent for the TI Employees Pension Plan and 3.87 percent for the TI Employees Non-Qualified Pension Plans, whichever rate produces the higher lump-sum amount. A discount rate assumption of 3.61 percent for the TI Employees Pension Plan and 3.87 percent for the non-qualified pension plans was used to determine the present value of each lump sum.

TI Employees Pension Plan

The TI Employees Pension Plan is a qualified defined benefit pension plan. See "Benefits – Retirement plans" for a discussion of the origin and purpose of the plan. Employees who joined the U.S. payroll after November 30, 1997, are not eligible to participate in this plan.

Plan participants are eligible for normal retirement under the terms of the plan at 65 years of age with one year of credited service. Participants are eligible for early retirement at 55 years of age with 20 years of employment or 60 years of age with five years of employment. As of December 31, 2019, Mr. Templeton and Mr. Delagi were eligible for early or normal retirement.

Participants may request payment of accrued benefits at termination or any time thereafter. Participants may choose a lump-sum payment or one of six forms of annuity. In order of largest to smallest periodic payment, the forms of annuity are: (i) single life annuity, (ii) 5-year certain and life annuity, (iii) 10-year certain and life annuity, (iv) joint and 50 percent survivor annuity, (v) joint and 75 percent survivor annuity, and (vi) joint and 100 percent survivor annuity. Participants who do not request payment will begin to receive benefits in April of the year after reaching the age of 70½ in the form of annuity required under the IRC.

The pension formula for the qualified plan is intended to provide a participant with an annual retirement benefit equal to 1.5 percent multiplied by the product of (i) years of credited service and (ii) the average of the five highest consecutive years of the participant's base salary plus bonus up to a limit imposed by the IRS, less a percentage (based on the participant's year of birth, when the participant elects to retire and the participant's years of service with TI) of the amount of compensation on which the participant's Social Security benefit is based.

If an individual takes early retirement and chooses to begin receiving an annual retirement benefit at that time, such benefit is reduced by an early retirement factor. As a result, the annual benefit is lower than the one the participant would have received at age 65.

Participants whose employment terminates due to disability may choose to receive their accrued benefits at any time prior to age 65. Alternatively, the participant may choose to defer receipt of the accrued benefit until reaching age 65 and then take a disability benefit. The disability benefit paid at age 65 is based on salary and bonus, years of credited service the participant would have accrued to age 65 had the participant not become disabled, and disabled status.

The benefit payable in the event of death is based on salary and bonus, years of credited service and age at the time of death, and may be in the form of a lump sum or annuity at the election of the beneficiary. The earliest date of payment is the first day of the second calendar month following the month of death.

Leaves of absence, including a bridge to retirement, are credited to years of service under the qualified pension plan. See the discussion of leaves of absence under “Potential payments upon termination or change in control – Termination – Perquisites.”

TI employees non-qualified pension plans

TI has two non-qualified pension plans: the TI Employees Non-Qualified Pension Plan (Plan I), which governs amounts earned before 2005; and the TI Employees Non-Qualified Pension Plan II (Plan II), which governs amounts earned after 2004. Each is a non-qualified defined benefit pension plan. See “Benefits – Retirement plans” for a discussion of the purpose of the plans. As with the qualified defined benefit pension plan, employees who joined the U.S. payroll after November 30, 1997, are not eligible to participate in Plan I or Plan II. Eligibility for normal and early retirement under these plans is the same as under the qualified plan (see above). Benefits are paid in a lump sum.

A participant's benefits under Plan I and Plan II are calculated using the same formula as described above for the TI Employees Pension Plan. However, the IRS limit on the amount of compensation on which a qualified pension benefit may be calculated does not apply. Additionally, the IRS limit on the amount of qualified benefit the participant may receive does not apply to these plans. Once this non-qualified benefit amount has been determined using the formula described above, the individual's qualified benefit is subtracted from it. The resulting difference is multiplied by an age-based factor to obtain the amount of the lump-sum benefit payable to an individual under the non-qualified plans.

Amounts under Plan I will be distributed when payment of the participant's benefit under the qualified pension plan commences. Amounts under Plan II will be distributed subject to the requirements of Section 409A of the IRC. Because the named executive officers are among the 50 most highly compensated officers of the company, Section 409A of the IRC requires that they not receive any lump-sum distribution payment under Plan II before the first day of the seventh month following termination of employment.

If a participant terminates due to disability, amounts under Plan I will be distributed when payment of the participant's benefit under the qualified plan commences. For amounts under Plan II, distribution is governed by Section 409A of the IRC, and the disability benefit is reduced to reflect the payment of the benefit prior to age 65.

In the event of death, payment under both plans is based on salary and bonus, years of credited service and age at the time of death and will be in the form of a lump sum. The earliest date of payment is the first day of the second calendar month following the month of death.

Balances in the plans are unsecured obligations of the company. For amounts under Plan I, in the event of a change in control, the present value of the individual's benefit would be paid not later than the month following the month in which the change in control occurred. For such amounts, the pre-2010 definition of a change in control (see the discussion following the Outstanding equity awards at fiscal year-end 2019 table) applies. For all amounts accrued under this plan, if a sale of substantially all of the assets of the company occurred, the present value of the individual's benefit would be distributed in a lump sum as soon as reasonably practicable following the sale of assets. For amounts under Plan II, no distribution of benefits is triggered by a change in control.

Leaves of absence, including a bridge to retirement, are credited to years of service under the non-qualified pension plans. For a discussion of leaves of absence, see “Potential payments upon termination or change in control – Termination – Perquisites.”

TI Employees Survivor Benefit Plan

TI's qualified and non-qualified pension plans provide that upon the death of a retirement-eligible employee, the employee's beneficiary receives a payment equal to half of the benefit to which the employee would have been entitled under the pension plans had the employee retired instead of died. We have a survivor benefit plan that pays the beneficiary a lump sum that, when added to the reduced amounts the beneficiary receives under the pension plans, equals the benefit the employee would have been entitled to receive had the employee retired instead of died. Because Messrs. Templeton and Delagi were eligible for early retirement as of December 31, 2019, their beneficiaries would be eligible for benefits under the survivor benefit plan if they were to die.

2019 non-qualified deferred compensation

The following table shows contributions to each named executive officer's deferred compensation account in 2019 and the aggregate amount of his deferred compensation as of December 31, 2019.

Name	Executive Contributions in Last FY (\$) (1)	Registrant Contributions in Last FY (\$) (2)	Aggregate Earnings in Last FY (\$) (3)	Aggregate Withdrawals/Distributions (\$) (4)	Aggregate Balance at Last FYE (\$) (5)
R. K. Templeton	\$ 190,875	\$ 276,044	\$ 4,671,523 (3)	\$1,156,570 (4)	\$ 17,433,129 (6)
R. R. Lizardi	\$ 52,400	\$ 74,606	\$ 78,632	—	\$ 616,316
N. Anderskouv	\$ 49,817	\$ 87,066	\$ 133,584	\$ 54,196	\$ 558,223
R. G. Delagi	—	—	—	—	—
H. Ilan	\$ 162,700	\$ 56,921	\$ 143,543	—	\$ 1,038,204

- (1) Amounts shown for Mr. Templeton and Ilan include a portion of their salary and bonus paid in 2019; for Messrs. Lizardi and Anderskouv include a portion of their salary paid in 2019.
- (2) Company matching contributions pursuant to the defined contribution plan. These amounts are included in the "All Other Compensation" column of the 2019 summary compensation table.
- (3) Consists of: (a) \$385,200 in dividend equivalents paid under the 120,000-share 1995 RSU award previously discussed, settlement of which has been deferred until after termination of employment; (b) a \$4,054,800 increase in the value of the RSU award (calculated by subtracting the value of the award at year-end 2018 from the value of the award at year-end 2019 (in both cases, the number of RSUs is multiplied by the closing price of TI common stock on the last trading date of the year)); and (c) a \$231,523 gain in Mr. Templeton's deferred compensation account in 2019. Dividend equivalents are paid at the same rate as dividends on TI common stock.
- (4) Consists of dividend equivalents paid on the RSU award discussed in Note 3 and a \$771,370 deferred compensation plan account distribution.
- (5) All amounts contributed by a named executive officer and by the company in prior years have been reported in the summary compensation table in previously filed proxy statements in the year earned to the extent he was a named executive officer for purposes of the SEC's executive compensation disclosure.
- (6) Of this amount, \$15,394,800 is attributable to Mr. Templeton's 1995 RSU award, calculated as described in Note 3. The remainder is the balance of his deferred compensation account.

See "Benefits – Retirement plans" for a discussion of the purpose of the plan. An employee's deferred compensation account contains eligible compensation the employee has elected to defer and contributions by the company that are in excess of the IRS limits on (i) contributions the company may make to the enhanced defined contribution plan and (ii) matching contributions the company may make related to compensation the executive officer deferred into his deferred compensation account.

Participants in the deferred compensation plan may choose to defer up to (i) 25 percent of their base salary, (ii) 90 percent of their performance bonus, and (iii) 90 percent of profit sharing. Elections to defer compensation must be made in the calendar year prior to the year in which the compensation will be earned.

During 2019, participants could choose to have their deferred compensation mirror the performance of one or more of the following mutual funds, each of which is managed by a third party (these alternatives, which may be changed at any time, are the same as those offered to participants in the defined contribution plans): BlackRock MSCI ACWI ex-U.S. IMI Index Lendable Fund F, Northern Trust Short Term Investment Fund, Northern Trust Aggregate Bond Index Fund-Lending, Northern Trust Russell 1000 Value Index Fund-Lending, Northern Trust Russell 1000 Growth Index Fund-Lending, Northern Trust Russell 2000 Index Fund-Lending, Northern Trust MidCap 400 Index Fund-Lending, BlackRock Equity Index Fund F, BlackRock (EAFE) (Europe, Australia, Far East) Equity Index Fund F, BlackRock Lifepath Index 2020 Fund F, BlackRock Lifepath Index 2030 Fund F, BlackRock Lifepath Index 2040 Fund F, BlackRock Lifepath Index 2050 Fund F, BlackRock Lifepath Index 2025 Fund F, BlackRock Lifepath Index 2035 Fund F, BlackRock Lifepath Index 2045 Fund F, BlackRock Lifepath Index 2055 Fund F, BlackRock Lifepath Index 2060 Fund F and BlackRock Lifepath Index Retirement Fund F.

From among the available investment alternatives, participants may change their instructions relating to their deferred compensation daily. Earnings on a participant's balance are determined solely by the performance of the investments that the participant has chosen. The company does not guarantee any minimum return on investments. A third party administers the company's deferred compensation program.

A participant may request distribution from the plan in the case of an unforeseeable emergency. To obtain an unforeseeable emergency withdrawal, a participant must meet the requirements of Section 409A of the IRC. Otherwise, balances are paid to participants pursuant to their distribution elections and are subject to applicable IRC limitations.

Amounts contributed by the company, and amounts earned and deferred by the participant for which there is a valid distribution election on file, will be distributed in accordance with the participant's election. Annually participants may elect separate distribution dates for deferred compensation attributable to a participant's (i) bonus and profit sharing and (ii) salary. Participants may elect that these distributions be in the form of a lump sum or annual installments to be paid out over a period of five or ten consecutive years. Amounts for which no valid distribution election is on file will be distributed three years from the date of deferral.

In the event of the participant's death, payment will be in the form of a lump sum and the earliest date of payment is the first day of the second calendar month following the month of death. For any other circumstance resulting in termination of employment, payments are distributed in accordance with the participant's valid distribution election.

Like the balances under the non-qualified defined benefit pension plans, deferred compensation balances are unsecured obligations of the company. For amounts earned and deferred prior to 2010, a change in control does not trigger a distribution under the plan. For amounts earned and deferred after 2009, distribution occurs, to the extent permitted by Section 409A of the IRC, if the participant is involuntarily terminated within 24 months after a change in control. Change in control is the Plan definition.

Potential payments upon termination or change in control

None of the named executive officers has an employment contract with the company. They are eligible for benefits on generally the same terms as other U.S. employees upon termination of employment or change in control of the company. TI does not reimburse executive officers for any income or excise taxes that are payable by the executive as a result of payments relating to termination or change in control. For a discussion of the impact of these programs on the compensation decisions for 2019, see "Analysis of compensation determinations for 2019 – Total compensation" and "Compensation following employment termination or change in control."

Termination

The following programs may result in payments to a named executive officer whose employment terminates. Most of these programs have been discussed above.

Bonus

Our policies concerning bonus and the timing of payments are described under "Compensation philosophy and elements." Whether a bonus would be awarded under other circumstances and in what amount would depend on the facts and circumstances of termination and is subject to the Compensation Committee's discretion. If awarded, bonuses are paid by the company.

Qualified and non-qualified defined benefit pension plans

The purposes of these plans are described under "Benefits – Retirement plans." The formula for determining benefits, the forms of benefit and the timing of payments are described under "2019 pension benefits." The amounts disbursed under the qualified and non-qualified plans are paid, respectively, by the TI Employees Pension Trust and the company.

Survivor benefit plan

The purpose of this plan, along with the formula for determining the amount of benefit, the form of benefit and the timing of payments, are described under "2019 pension benefits – TI Employees Survivor Benefit Plan." Amounts distributed are paid by the TI Employees Health Benefit Trust.

Deferred compensation plan

The purpose of this plan is described under “Benefits – Deferred Compensation.” The amounts payable under this program depend solely on the performance of investments that the participant has chosen. The timing of payments is discussed under “2019 non-qualified deferred compensation” and except in the case of death, payments are made according to the participant’s distribution election. Amounts distributed are paid by the company.

Equity compensation

Depending on the circumstances of termination, grantees whose employment terminates may retain the right to exercise previously granted stock options and receive shares under outstanding RSU awards as described in the discussion following the outstanding equity awards at fiscal year-end 2019 table. RSU awards include a right to receive dividend equivalents. The dividend equivalents are paid annually by the company in a single cash payment after the last dividend payment of the year.

Perquisites

Financial counseling is provided to executive officers for a transition period following retirement. Otherwise, no perquisites continue after termination of employment.

In the case of a resignation pursuant to a separation agreement, employees above a certain job grade level, including executive officers, might be offered a 12-month paid leave of absence before termination, in exchange for a non-compete and non-solicitation commitment and a release of claims against the company. The leave period will be credited to years of service under the pension plans described above. During the leave, the executive officer’s stock options will continue to become exercisable and his or her RSUs will continue to vest. Amounts paid to an individual during a paid leave of absence are not counted when calculating benefits under the qualified and non-qualified pension plans.

In the case of a separation agreement in which the executive officer will be at least 50 years old and have at least 10 years of employment with the company on his or her last day of active employment before beginning the paid leave of absence, the separation agreement will typically include an unpaid leave of absence, to commence at the end of the paid leave and end when the executive officer has reached age 55 (bridge to retirement). During the bridge to retirement, the executive officer will continue to accrue years of service under the qualified and non-qualified pension plans described above. Stock options will continue to become exercisable and RSUs will remain in effect.

Change in control

Our only program, plan or arrangement providing benefits triggered by a change in control is the TI Employees Non-Qualified Pension Plan. A change in control at December 31, 2019, would have accelerated payment of the balance under that plan. See “2019 pension benefits – TI employees non-qualified pension plans” for a discussion of the purpose of change in control provisions of that plan as well as the circumstances and the timing of payment.

Upon a change in control there is no acceleration of vesting of stock options and RSUs granted after 2009. Only upon an involuntary termination (not for cause) within 24 months after a change in control of TI will the vesting of such stock options and RSUs accelerate. See the discussion following the outstanding equity awards at fiscal year-end 2019 table for further information concerning change in control provisions relating to stock options and RSUs.

The table below shows as of December 31, 2019, the potential payments upon termination or change in control for each of the named executive officers.

Form of Compensation	Disability	Death	Involuntary Termination for Cause	Resignation; Involuntary Termination (not for Cause)	Retirement	Change in Control
R. K. Templeton (1)						
Qualified Defined Benefit						
Pension Plan	\$ 1,039,516 (2)	\$ 524,741 (3)	\$ 1,037,568 (4)	\$ 1,037,568 (4)	\$ 1,037,568 (4)	—
Non-Qual. Defined Benefit						
Pension Plan	\$ 609,677 (5)	\$ 244,684 (3)	\$ 484,158 (4)	\$ 484,158 (4)	\$ 484,158 (4)	\$ 484,158 (4)
Non-Qual. Defined Benefit						
Pension Plan II	\$ 211,455 (5)	\$ 139,436 (3)	\$ 275,362 (4)	\$ 275,362 (4)	\$ 275,362 (4)	—
Survivor Benefit Plan	—	\$ 888,227 (6)	—	—	—	—
Deferred Compensation (7)	—	\$ 2,038,329	—	—	—	—
RSUs	\$ 51,148,582 (8)	\$ 51,148,582 (8)	\$ 15,394,800 (9)	\$ 51,148,582 (10)	\$ 51,148,582 (10)	\$ 15,394,800 (9)
Stock Options	\$ 204,249,513 (11)	\$ 204,249,513 (11)	—	\$ 204,249,513 (11)	\$ 204,249,513 (11)	—
R. K. Templeton Total	\$ 257,258,743	\$ 259,233,512	\$ 17,191,888	\$ 257,195,183	\$ 257,195,183	\$ 15,878,958
R. R. Lizardi						
Qualified Defined Benefit						
Pension Plan	—	—	—	—	—	—
Non-Qual. Defined Benefit						
Pension Plan	—	—	—	—	—	—
Non-Qual. Defined Benefit						
Pension Plan II	—	—	—	—	—	—
Survivor Benefit Plan	—	—	—	—	—	—
Deferred Compensation (7)	—	\$ 616,316	—	—	—	—
RSUs	\$ 7,205,280 (8)	\$ 7,205,280 (8)	—	—	—	—
Stock Options	\$ 4,612,897 (11)	\$ 4,612,897 (11)	—	\$ 234,369 (12)	—	—
R. R. Lizardi Total	\$ 11,818,177	\$ 12,434,493	—	\$ 234,369	—	—
N. Anderskouv						
Qualified Defined Benefit						
Pension Plan	—	—	—	—	—	—
Non-Qual. Defined Benefit						
Pension Plan	—	—	—	—	—	—
Non-Qual. Defined Benefit						
Pension Plan II	—	—	—	—	—	—
Survivor Benefit Plan	—	—	—	—	—	—
Deferred Compensation (7)	—	\$ 558,223	—	—	—	—
RSUs	\$ 10,410,092 (8)	\$ 10,410,092 (8)	—	—	—	—
Stock Options	\$ 8,496,159 (11)	\$ 8,496,159 (11)	—	\$ 371,090 (12)	—	—
N. Anderskouv Total	\$ 18,906,251	\$ 19,464,474	—	\$ 371,090	—	—
R. G. Delagi (1)						
Qualified Defined Benefit						
Pension Plan	\$ 2,296,410 (2)	\$ 939,216 (3)	\$ 1,779,353 (4)	\$ 1,779,353 (4)	\$ 1,779,353 (4)	—
Non-Qual. Defined Benefit						
Pension Plan	\$ 522,241 (5)	\$ 175,582 (3)	\$ 334,028 (4)	\$ 334,028 (4)	\$ 334,028 (4)	\$ 334,028 (4)
Non-Qual. Defined Benefit						
Pension Plan II	\$ 11,040,639 (5)	\$ 5,311,367 (3)	\$ 10,061,046 (4)	\$ 10,061,046 (4)	\$ 10,061,046 (4)	—
Survivor Benefit Plan	—	\$ 5,748,262 (6)	—	—	—	—
Deferred Compensation (7)	—	—	—	—	—	—
RSUs	\$ 11,584,715 (8)	\$ 11,584,715 (8)	—	\$ 11,584,715 (10)	\$ 11,584,715 (10)	—
Stock Options	\$ 22,260,459 (11)	\$ 22,260,459 (11)	—	\$ 22,260,459 (11)	\$ 22,260,459 (11)	—
R. G. Delagi Total	\$ 47,704,464	\$ 46,019,601	\$ 12,174,427	\$ 46,019,601	\$ 46,019,601	\$ 334,028
H. Ilan						
Qualified Defined Benefit						
Pension Plan	—	—	—	—	—	—
Non-Qual. Defined Benefit						
Pension Plan	—	—	—	—	—	—
Non-Qual. Defined Benefit						
Pension Plan II	—	—	—	—	—	—
Survivor Benefit Plan	—	—	—	—	—	—
Deferred Compensation (7)	—	\$ 1,038,204	—	—	—	—
RSUs	\$ 10,410,092 (8)	\$ 10,410,092 (8)	—	—	—	—
Stock Options	\$ 11,098,427 (11)	\$ 11,098,427 (11)	—	\$ 2,973,357 (12)	—	—
H. Ilan Total	\$ 21,508,519	\$ 22,546,723	—	\$ 2,973,357	—	—

(1) Messrs. Templeton and Delagi were retirement eligible for purposes of TI's defined benefit pension plans and under the terms of their equity compensation awards as of December 31, 2019. Mr. Delagi retired from the company effective February 5, 2020.

- (2) The amount shown is the lump-sum benefit payable at age 65 to the named executive officer in the event of termination as of December 31, 2019, due to disability, assuming the named executive officer does not request payment of his disability benefit until age 65. The assumptions used in calculating these amounts are the same as the age-65 lump-sum assumptions used for financial reporting purposes for the company's audited financial statements for 2019 and are described in Note 6 to the 2019 pension benefits table.
- (3) Value of the benefit payable in a lump sum to the executive officer's beneficiary calculated as required by the terms of the plan assuming the earliest possible payment date. The plan provides that in the event of death, the beneficiary receives 50 percent of the participant's accrued benefit, reduced by the age-applicable joint and 50 percent survivor factor.
- (4) Lump-sum value of the accrued benefit as of December 31, 2019, calculated as required by the terms of the plans assuming the earliest possible payment date.
- (5) The amount shown is the lump-sum benefit payable at age 65, in the case of the Non-Qualified Defined Benefit Pension Plan, or separation from service in the case of Plan II. The assumptions used are the same as those described in Note 2.
- (6) Calculated as required by the terms of the plan assuming the earliest possible payment date.
- (7) In the event of death, a participant's deferred compensation balance becomes payable immediately. The amount shown in the column titled "Death" is the balance as of December 31, 2019, under the non-qualified deferred compensation plan. For all separation events other than death, balances are distributed in accordance with the participant's distribution election as discussed in the narrative following the 2019 non-qualified deferred compensation table.
- (8) Calculated by multiplying the number of outstanding RSUs by the closing price of TI common stock as of December 31, 2019 (\$128.29). In the event of termination due to disability or death, all outstanding awards will continue to vest according to their terms. See the first table under "Outstanding equity awards at fiscal year-end 2019" for the number of unvested RSUs as of December 31, 2019, and the related discussion following that table of an additional outstanding RSU award held by Mr. Templeton.
- (9) Calculated by multiplying the previously discussed 120,000 vested RSUs by the closing price of TI common stock as of December 31, 2019 (\$128.29).
- (10) Due to retirement eligibility, calculated by multiplying the number of outstanding RSUs held at such termination by the closing price of TI common stock as of December 31, 2019 (\$128.29). RSU awards stay in effect and pay out shares according to the vesting schedule.
- (11) Calculated as the difference between the grant price of all outstanding in-the-money options and the closing price of TI common stock as of December 31, 2019 (\$128.29), multiplied by the number of shares under such options as of December 31, 2019.
- (12) Calculated as the difference between the grant price of all exercisable in-the-money options and the closing price of TI common stock as of December 31, 2019 (\$128.29), multiplied by the number of shares under such options as of December 31, 2019.

Pay ratio

For 2019, the median of annual total compensation of all employees of our company (other than our CEO), was \$82,034. The annual total compensation of our CEO was \$18,655,972. Based on this information, the ratio of the annual total compensation of our CEO to the median of the annual total compensation of all employees was approximately 227 to 1.

There has been no change in the company's employee population or employee compensation arrangements that would result in a significant change in the pay ratio disclosure. Further, there has been no change in the circumstances of the employee identified as the median employee in 2017. Accordingly, the pay ratio calculation has been made using the 2019 compensation for the median employee identified in 2017.

To identify the median of the annual total compensation of all our employees, as well as to determine the annual total compensation of the "median employee," we used the following methodology and material assumptions, adjustments and estimates to identify the median employee in 2017:

- We selected October 5, 2017, as the date upon which we would identify the "median employee."
- As of this date, our employee population consisted of approximately 29,973 individuals working at the company and consolidated subsidiaries, excluding employees on leaves of absence who are not expected to return to work.

- To identify the “median employee,” we used base salary and profit sharing information, each of which is paid to all employees. Salaries were annualized for all permanent employees who were employees for less than the full fiscal year or who were on an unpaid leave of absence during a portion of the year.
- We identified and calculated the elements of the median employee’s compensation for 2017 in accordance with the requirements of Item 402(c)(2)(x) of Regulation S-K, including the value of the employee’s health and welfare benefits (estimated for the employee and the employee’s eligible dependents) and retirement-related benefits.
- We applied the exchange rate that we utilize in our payroll system, as of the identification date, to convert foreign currency to U.S. dollars.

The annual total compensation of our CEO is the amount reported in the “Total” column of our 2019 summary compensation table, adding in the value of health and welfare benefits (estimated for our CEO and his eligible dependents) and retirement-related benefits. This resulted in annual total compensation for purposes of determining the ratio in the amount of \$18,655,972.

Audit Committee report

The Audit Committee of the board of directors has furnished the following report:

As noted in the committee’s charter, TI management is responsible for preparing the company’s financial statements. The company’s independent registered public accounting firm is responsible for auditing the financial statements. The activities of the committee are in no way designed to supersede or alter those traditional responsibilities. The committee’s role does not provide any special assurances with regard to TI’s financial statements, nor does it involve a professional evaluation of the quality of the audits performed by the independent registered public accounting firm.

The committee has reviewed and discussed with management and the independent accounting firm, as appropriate, (1) the audited financial statements and (2) management’s report on internal control over financial reporting and the independent accounting firm’s related opinions.

The committee has discussed with the independent registered public accounting firm, Ernst & Young, the required communications specified by auditing standards together with guidelines established by the SEC and the Sarbanes-Oxley Act.

The committee has received the written disclosures and the letter from the independent registered public accounting firm required by the applicable requirements of the Public Company Accounting Oversight Board, regarding the independent registered public accounting firm’s communications with the Audit Committee concerning independence, and has discussed with Ernst & Young the firm’s independence.

Based on the review and discussions referred to above, the committee recommended to the board of directors that the audited financial statements be included in the company’s annual report on Form 10-K for 2019 for filing with the SEC.

Mark A. Blinn, Chair

Todd M. Bluedorn

Jean M. Hobby

Proposal to ratify appointment of independent registered public accounting firm

The Audit Committee of the board has the authority and responsibility for the appointment, compensation, retention and oversight of the work of TI’s independent registered public accounting firm. The Audit Committee has appointed Ernst & Young LLP to be TI’s independent registered public accounting firm for 2020.

TI has engaged Ernst & Young or a predecessor firm to serve as the company’s independent registered public accounting firm for over 60 years. In order to assure continuing auditor independence, the Audit Committee periodically considers whether the annual audit of TI’s financial statements should be conducted by another firm.

The lead audit partner on the TI engagement serves no more than five consecutive years in that role, in accordance with SEC rules. The Audit Committee Chair and management have direct input into the selection of the lead audit partner.

The members of the Audit Committee and the board believe that the continued retention of Ernst & Young to serve as the company’s independent registered public accounting firm is in the best interest of the company and its investors. Consequently, the board asks the stockholders to ratify the appointment of Ernst & Young. If the stockholders do not ratify the appointment, the Audit Committee will consider whether it should appoint another independent registered public accounting firm.

Representatives of Ernst & Young are expected to be present and available to respond to appropriate questions at the annual meeting. They have the opportunity to make a statement if they desire to do so; they have indicated that, as of this date, they do not.

The fees for services provided by Ernst & Young to the company are described below:

	2019	2018
Audit	\$ 9,925,000	\$ 10,166,000
Audit-Related	\$ 763,000	\$ 811,000
Tax	\$ 1,515,000	\$ 3,313,000
All Other	\$ 25,000	\$ 24,000

The services provided were as follows:

Audit: our annual audit, including the audit of internal control over financial reporting, reports on Form 10-Q, assistance with public debt offerings, statutory audits required internationally and accounting consultations.

Audit-related: including employee benefit plan audits and certification procedures relating to compliance with local-government or other regulatory standards for various non-U.S. subsidiaries.

Tax: professional services for tax compliance (preparation and review of income tax returns and other tax-related filings) and tax advice on U.S. and foreign tax matters.

All Other: TI Foundation audit and training.

Pre-approval policy. The Audit Committee is required to pre-approve the audit and non-audit services to be performed by the independent registered public accounting firm to assure that the provision of such services does not impair the firm's independence.

Annually the independent registered public accounting firm and the director of internal audits present to the Audit Committee services expected to be performed by the firm over the next 12 months. The Audit Committee reviews and, as it deems appropriate, pre-approves those services. The services and estimated fees are presented to the Audit Committee for consideration in the following categories: Audit, Audit-related, Tax and All Other (each as defined in Schedule 14A of the Securities Exchange Act). For each service listed in those categories, the committee receives detailed documentation indicating the specific services to be provided. The term of any pre-approval is 12 months from the date of pre-approval, unless the Audit Committee specifically provides for a different period. The Audit Committee reviews on at least a quarterly basis the services provided to date by the firm and the fees incurred for those services. The Audit Committee may revise the list of pre-approved services and related fees from time to time, based on subsequent determinations.

In order to respond to time-sensitive requests for services that may arise between regularly scheduled meetings of the Audit Committee, the committee has delegated pre-approval authority to its Chair (the Audit Committee does not delegate to management its responsibilities to pre-approve services). The Chair reports pre-approval decisions to the Audit Committee and seeks ratification of such decisions at the Audit Committee's next scheduled meeting.

The Audit Committee or its Chair pre-approved all services provided by Ernst & Young during 2019.

The board of directors recommends a vote FOR ratification of the appointment of Ernst & Young LLP as the company's independent registered public accounting firm for 2020.

Additional information

Voting securities

As stated in the notice of annual meeting, holders of record of the common stock at the close of business on February 24, 2020, may vote at the meeting or any adjournment of the meeting. As of February 24, 2020, 933,685,482 shares of TI common stock were outstanding. This is the only class of capital stock entitled to vote at the meeting. Each holder of common stock has one vote for each share held.

Security ownership of certain beneficial owners

The following table shows the only persons who have reported beneficial ownership of more than 5 percent of the common stock of the company by virtue of filing a schedule 13G with the SEC. Persons generally “beneficially own” shares if they have the right to either vote those shares or dispose of them. More than one person may be considered to beneficially own the same shares.

Name and Address	Shares Owned at December 31, 2019	Percent of Class
The Vanguard Group 100 Vanguard Blvd. Malvern, PA 19355	88,492,620 (1)	9.49%
BlackRock, Inc. 55 East 52 nd Street New York, NY 10055	69,284,496 (2)	7.43%

- (1) According to its Form 13G filing, The Vanguard Group has sole voting power for 1,447,839, shared voting power for 261,417, sole dispositive power for 86,867,181 and shared dispositive power for 1,625,439 of these shares.
- (2) According to its Form 13G filing, BlackRock, Inc. has sole voting power for 59,220,983 shares, and sole dispositive power for 69,284,496 shares.

Security ownership of directors and management

The following table shows the beneficial ownership of TI common stock by directors, the named executive officers and all executive officers and directors as a group. Each director and named executive officer has sole voting power (except for shares obtainable within 60 days, shares subject to RSUs and shares credited to deferred compensation accounts as detailed in the footnotes to the table) and sole investment power with respect to the shares owned. The table excludes shares held by a family member if a director or executive officer has disclaimed beneficial ownership. No director or executive officer has pledged shares of TI common stock.

Name	Shares Owned at December 31, 2019	Percent of Class
Directors (1)		
M. A. Blinn	27,044	*
T. M. Bluedorn	7,150	*
J. F. Clark	29,863	*
C. S. Cox	103,403	*
M. S. Craighead	15,190	*
J. M. Hobby	12,959	*
M. D. Hsu	**	*
R. Kirk	54,689	*
P. H. Patsley	157,451	*
R. E. Sanchez	67,437	*
R. K. Templeton	4,001,474 (2)	*
Management (3)		
R. R. Lizardi	136,527	*
N. Anderskouv	205,598	*
R. G. Delagi	426,942	*
H. Ilan	254,424	*
All executive officers and directors as a group (4)	6,860,565	*

* less than 1 percent.

** Starting in 2020, the board approved a change in a new director’s one-time initial grant. New directors will now receive a one-time initial grant of restricted stock units with a grant date value of \$200,000. Accordingly, on April 1, 2020, the date of his election to the board, Mr. Hsu will receive a restricted stock unit grant with a value of \$200,000. The number of shares will be determined on April 1 (the date of the grant).

- (1) Included in the shares owned shown above are:

Directors	Shares Obtainable within 60 Days	RSUs (in Shares) (a)	Shares Credited to Deferred Compensation Accounts (b)
M. A. Blinn	7,300	11,135	8,609
T. M. Bluedorn	3,286	3,864	—
J. F. Clark	17,824	7,014	5,025
C. S. Cox	67,567	30,160	2,537
M. S. Craighead	1,133	2,957	—
J. M. Hobby	7,834	5,125	—
M. D. Hsu	—	(c)	—
R. Kirk	40,662	5,014	2,892
P. H. Patsley	77,569	7,014	49,772
R. E. Sanchez	40,662	6,867	9,502
R. K. Templeton	2,586,757	398,695	—

- (a) The non-employee directors' RSUs granted before 2007 are settled in TI common stock generally upon the director's termination of service provided he or she has served at least eight years or has reached the company's retirement age for directors. RSUs granted after 2006 are settled in TI common stock generally upon the fourth anniversary of the grant date.
- (b) The shares in deferred compensation accounts are issued following the director's termination of service.
- (c) On April 1, 2020, the date of his election to the board, Mr. Hsu will receive a restricted stock unit grant with a value of \$200,000. The number of shares will be determined on April 1 (the date of the grant).

- (2) Includes 13,079 shares credited to Mr. Templeton's 401(k) account and 722,701 shares held by the Richard and Mary Templeton Foundation, a charitable foundation. Mr. Templeton has no pecuniary interest in the Foundation's shares.

- (3) Included in the shares owned shown above are:

Executive Officer	Shares Obtainable within 60 Days	Shares Credited to 401(k) Account	RSUs (in Shares)
R. R. Lizardi	65,546	—	56,164
N. Anderskov	120,225	—	81,145
R. G. Delagi	320,934	12,205	90,301
H. Ilan	173,279	—	81,145

- (4) Includes:

- (a) 4,545,264 shares obtainable within 60 days;
- (b) 25,909 shares credited to 401(k) accounts;
- (c) 1,084,894 shares subject to RSU awards; for the terms of these RSUs, see pages 17 and 35-36; and
- (d) 78,288 shares credited to certain non-employee directors' deferred compensation accounts; shares in deferred compensation accounts are issued following a director's termination of service.

Related person transactions

Because we believe that company transactions with directors and executive officers of TI or with persons related to TI directors and executive officers present a heightened risk of creating or appearing to create a conflict of interest, we have a written related person transaction policy that has been approved by the board of directors. The policy states that TI directors and executive officers should obtain the approvals or ratifications specified below in connection with any related person transaction. The policy applies to transactions in which:

1. TI or any TI subsidiary is or will be a participant;
2. The amount involved exceeds or is expected to exceed \$120,000 in a fiscal year; and

3. Any of the following (a “related person”) has or will have a direct or indirect interest:
- (a) A TI director or executive officer, or an Immediate Family Member of a director or executive officer;
 - (b) A stockholder owning more than 5 percent of the common stock of TI or an Immediate Family Member of such stockholder, or, if the 5 percent stockholder is not a natural person, any person or entity designated in the Form 13G or 13D filed under the SEC rules and regulations by the 5 percent stockholder as having an ownership interest in TI stock (individually or collectively, a “5 percent holder”); or
 - (c) An entity in which someone listed in (a) above has a 5 percent or greater ownership interest, by which someone listed in (a) is employed, or of which someone listed in (a) is a director, principal or partner.

For purposes of the policy, an “Immediate Family Member” is any child, stepchild, parent, stepparent, spouse, sibling, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother-in-law, sister-in-law or any person (other than a tenant or employee) sharing the household of a TI director, executive officer or 5 percent holder.

The policy specifies that a related person transaction includes, but is not limited to, any financial transaction, arrangement or relationship (including any indebtedness or guarantee of indebtedness) or any series of similar transactions or arrangements.

The required approvals are as follows:

Arrangement Involving:	Approval Required by:
Executive officer who is also a member of the TI board, an Immediate Family Member of such person, or an entity in which any of the foregoing has a 5 percent or greater ownership interest	GSR Committee
Chair of the GSR Committee, chief compliance officer, any of his or her Immediate Family Members, or an entity in which any of the foregoing has a 5 percent or greater ownership interest	GSR Committee
Any other director or executive officer, an Immediate Family Member of such person, or an entity in which any of the foregoing has a 5 percent or greater ownership interest	Chief Compliance Officer in consultation with the Chair of the GSR Committee
A 5 percent holder	GSR Committee

No member of the GSR Committee will participate in the consideration of a related person arrangement in which such member or any of his or her Immediate Family Members is the related person.

The approving body or persons will consider all of the relevant facts and circumstances available to them, including (if applicable) but not limited to: the benefits to the company of the arrangement; the impact on a director’s independence; the availability of other sources for comparable products or services; the terms of the arrangement; and the terms available to unrelated third parties or to employees generally. The primary consideration is whether the transaction between TI and the related person (a) was the result of undue influence from the related person or (b) could adversely influence or appear to adversely influence the judgment, decisions or actions of the director or executive officer in meeting TI responsibilities or create obligations to other organizations that may come in conflict with responsibilities to TI.

No related person arrangement will be approved unless it is determined to be in, or not inconsistent with, the best interests of the company and its stockholders, as the approving body or persons shall determine in good faith.

The chief compliance officer will provide periodic reports to the committee on related person transactions. Any related person transaction brought to the attention of the chief compliance officer or of which the chief compliance officer becomes aware that is not approved pursuant to the process set forth above shall be terminated as soon as practicable.

The board has determined that the following types of transactions pose little risk of a conflict of interest and therefore has deemed them approved:

- Compensation paid to a TI director or executive officer for services as such, or where the sole interest in a related person transaction of a TI director, executive officer or 5 percent holder is their position as such;

- Transactions where the rates or charges involved are determined by competitive bids, involve the rendering of services as a common or contract carrier, or public utility, at rates or charges fixed in conformity with law or governmental authority;
- Transactions involving services as a bank depository of funds, transfer agent, registrar, trustee under a trust indenture or similar services;
- Interests of a related person arising only from:
 - the direct or indirect ownership in another party to the transaction and that ownership, when combined with the ownership of all the other individuals specified in 3(a)-(c) above, is less than 5 percent of the outstanding equity of such party;
 - an interest as a limited partner in a partnership, and that ownership interest, when combined with all the other ownership interests of the other individuals specified in 3(a)-(c) above, is less than 5 percent of the total ownership interest of the limited partnership;
 - their position as a director of another corporation or organization;
 - the ownership of TI stock and all holders of that class of stock receive the same benefit on a pro-rata basis;
- Transactions in the ordinary course of business where the only relationship of a TI director or executive officer, or their Immediate Family Member, is as an employee (other than an executive officer) and/or less than a 10 percent beneficial owner of the other entity if (i) the TI director or executive officer is not involved in negotiating the terms of the transaction and (ii) amounts involved for the fiscal year do not exceed the greater of \$200,000 or 2 percent of the entity's consolidated gross revenues for that year;
- Charitable contributions, grants or endowments by TI or the TI Foundation to an entity where the only relationship of the TI director or executive officer, or their Immediate Family Member, is as a trustee or employee (other than as an executive officer) if the aggregate payments for the fiscal year do not exceed the greater of \$200,000 or 2 percent of the recipient's consolidated gross revenues for that year. "Payments" exclude payments arising solely from investments in TI stock, payments under the TI Director Award Program and payments under non-discretionary charitable contribution matching programs; and
- Transactions involving the employment of an Immediate Family Member of a TI director or executive officer if such director or executive officer does not participate in the decisions regarding the hiring, performance evaluation or compensation of the Immediate Family Member and such hiring, performance evaluation or compensation is determined on a basis consistent with TI's human resources policies.

During 2019, two sons of R. Gregory Delagi (Senior Vice President) were employed in our facilities and manufacturing organizations. Mr. Delagi was not involved in any decisions regarding his sons' employment at TI, and their compensation was consistent with that of similarly situated employees and was determined on a basis consistent with the company's human resources policies.

Compensation committee interlocks and insider participation

During 2019, Messrs. Carp and Craighead and Mes. Cox and Patsley served on the Compensation Committee. No committee member (i) was an officer or employee of TI, (ii) was formerly an officer of TI or (iii) had any relationship requiring disclosure under the SEC's rules governing disclosure of related person transactions (Item 404 of Regulation S-K). No executive officer of TI served as a director or member of the compensation committee of another entity, one of whose directors or executive officers served as a member of our board of directors or a member of the Compensation Committee.

Cost of solicitation

The solicitation is made on behalf of our board of directors. TI will pay the cost of soliciting these proxies. We will reimburse brokerage houses and other custodians, nominees and fiduciaries for reasonable expenses they incur in sending these proxy materials to you if you are a beneficial holder of our shares.

Without receiving additional compensation, directors, officers and employees of TI may solicit proxies personally, by telephone, fax or email, from some stockholders if proxies are not promptly received. We have also hired Georgeson Inc. to assist in the solicitation of proxies at a cost of \$12,500 plus out-of-pocket expenses.

Stockholder proposals and nominations for 2021

The table below shows the deadlines for stockholders to submit proposals or director nominations for next year's annual meeting.

	Proposals for Inclusion in 2021 Proxy Materials	Director Nominees for Inclusion in 2021 Proxy Materials (Proxy Access)	Other Proposals/Nominees to be Presented at 2021 Annual Meeting (and Not for Inclusion in Proxy Materials)
When proposal must be received by Texas Instruments	On or before November 10, 2020	No earlier than October 11, 2020, and no later than November 10, 2020	No earlier than December 24, 2020, and no later than January 23, 2021

Proposals are to be sent to: Texas Instruments Incorporated, 12500 TI Boulevard, MS 8658, Dallas, TX 75243, Attn: Secretary.

We reserve the right to reject, rule out of order, or take any other appropriate action with respect to any proposal or nomination that does not comply with these and other applicable requirements.

Benefit plan voting

If you are a participant in the TI Contribution and 401(k) Savings Plan, or the TI 401(k) Savings Plan, you are a “named fiduciary” under the plans and are entitled to direct the voting of shares allocable to your accounts under these plans. The trustee administering your plan will vote your shares in accordance with your instructions. If you wish to instruct the trustee on the voting of shares held for your accounts, you should do so by April 20, 2020, in the manner described in the notice of annual meeting.

Additionally, participants under the plans are designated as “named fiduciaries” for the purpose of voting TI stock held under the plans for which no voting direction is received. TI shares held by the TI 401(k) savings plans for which no voting instructions are received by April 20, 2020, will be voted in the same proportions as the shares in the plans for which voting instructions have been received by that date unless otherwise required by law.

Telephone and internet voting

Registered stockholders and benefit plan participants. Stockholders with shares registered directly with Computershare (TI's transfer agent) and participants who beneficially own shares in a TI benefit plan may vote telephonically by calling (800) 690-6903 (within the U.S. and Canada only, toll-free) or via the internet at www.proxyvote.com.

The telephone and internet voting procedures are designed to authenticate stockholders' identities, to allow stockholders to give their voting instructions and to confirm that stockholders' instructions have been recorded properly.

Stockholders with shares registered in the name of a brokerage firm or bank. A number of brokerage firms and banks offer telephone and internet voting options. These programs may differ from the program provided to registered stockholders and benefit plan participants. Check the information forwarded by your bank, broker or other holder of record to see which options are available to you.

Stockholders voting via the internet should understand that there may be costs associated with electronic access, such as usage charges from telephone companies and internet access providers, that must be borne by the stockholder.

Stockholders sharing the same address

To reduce the expenses of delivering duplicate materials, we take advantage of the SEC's “householding” rules that permit us to deliver only one set of proxy materials (or one Notice of Internet Availability of Proxy Materials) to stockholders who share an address unless otherwise requested. If you share an address with another stockholder and have received only one set of these materials, you may request a separate copy at no cost to you by calling Investor Relations at (214) 479-3773 or by writing to Texas Instruments Incorporated, P.O. Box 660199, MS 8657, Dallas, TX 75266-0199, Attn: Investor Relations. For future annual meetings, you may request separate materials, or request that we send only one set of materials to you if you are receiving multiple copies, by calling (866) 540-7095 or writing to Investor Relations at the address given above.

Electronic delivery of proxy materials and copies of our Form 10-K

As an alternative to receiving printed copies of these materials in future years, we are pleased to offer stockholders the opportunity to receive proxy mailings electronically. To request electronic delivery, vote via the internet at www.proxyvote.com and, when prompted, enroll to receive or access proxy materials electronically in future years. After the meeting date, stockholders holding shares through a broker or bank may request electronic delivery by visiting www.icsdelivery.com/ti and entering information for each account held by a bank or broker. If you are a registered stockholder and would like to request electronic delivery, visit www-us.computershare.com/investor or call TI Investor Relations at (214) 479-3773 for more information. If you are a participant in a TI benefit plan and would like to request electronic delivery, call TI Investor Relations for more information.

Important Notice Regarding the Availability of Proxy Materials for the Stockholder Meeting to be held on April 23, 2020. This 2020 proxy statement and the company's 2019 annual report are accessible at: www.proxyvote.com.

The company's annual report on Form 10-K for the year ended December 31, 2019, which contains consolidated financial statements, accompanies this proxy statement. **You may also obtain a copy of the company's 2019 Form 10-K, that was filed with the SEC without charge by writing to Investor Relations, P.O. Box 660199, MS 8657, Dallas, TX 75266-0199.** Our Form 10-K is also available in the "Investor Relations" section of our website at www.ti.com.

Sincerely,



Cynthia Hoff Trochu
Senior Vice President,
Secretary and General Counsel

March 10, 2020
Dallas, Texas

Notice regarding forward-looking statements

This proxy statement includes forward-looking statements intended to qualify for the safe harbor from liability established by the Private Securities Litigation Reform Act of 1995. Statements herein that describe TI's business strategy, plans, goals, future capital spending levels and potential for growth, improved profit margins and cash generation are forward-looking statements. All such forward-looking statements are subject to certain risks and uncertainties that could cause actual results and amounts to differ materially from those in forward-looking statements. For a detailed discussion of the risks and uncertainties, see the Risk factors discussion in Item 1A of our annual report on Form 10-K for the year ended December 31, 2019. The forward-looking statements included in this proxy statement are made only as of the date of this proxy statement, and we undertake no obligation to update the forward-looking statements to reflect subsequent events or circumstances.

Directions and other annual meeting information

Directions

From DFW airport: Take the North Airport exit to IH-635E. Take IH-635E to the Greenville Avenue exit. Turn right (South) on Greenville. Turn right (West) on Forest Lane. Texas Instruments will be on your right at the second traffic light.

From Love Field airport: Take Mockingbird Lane East to US-75N (Central Expressway). Travel North on 75N to the Forest Lane exit. Turn right (East) on Forest Lane. You will pass two traffic lights. At the third light, the entrance to Texas Instruments will be on your left.

Parking

All visitors should park at the South Lobby, where reserved parking will be available.

Security

Be advised that TI's security policy forbids weapons, cameras and audio/video recording devices inside TI buildings. All bags will be subject to search upon entry into the building.

Attendance

For additional information about attending the annual meeting see the discussion under "Attendance requirements" on page 4.

Appendix A

Non-GAAP reconciliations

This proxy statement refers to ratios based on free cash flow. These are financial measures that were not prepared in accordance with generally accepted accounting principles in the U.S. (GAAP). Free cash flow is a non-GAAP measure calculated by subtracting capital expenditures from the most directly comparable GAAP measure, cash flows from operating activities (also referred to as cash flow from operations). We believe free cash flow and these ratios based on it provide insight into our liquidity, our cash-generating capability and the amount of cash potentially available to return to shareholders, as well as insight into our financial performance. These non-GAAP measures are supplemental to the comparable GAAP measures and are reconciled in the table below to the most directly comparable GAAP measures.

Free Cash Flow as a Percentage of Revenue (Millions of dollars)	For Years Ended December 31,			Total
	2019	2018	2017	
Cash flow from operations (GAAP)	\$ 6,649	\$ 7,189	\$ 5,363	\$19,201
Capital expenditures	(847)	(1,131)	(695)	(2,673)
Free cash flow (non-GAAP)	<u>\$ 5,802</u>	<u>\$ 6,058</u>	<u>\$ 4,668</u>	<u>\$16,528</u>
Revenue	<u>\$14,383</u>	<u>\$15,784</u>	<u>\$14,961</u>	<u>\$45,128</u>
Cash flow from operations as a percentage of revenue (GAAP)	46.2%	45.5%	35.8%	42.5%
Free cash flow as a percentage of revenue (non-GAAP)	40.3%	38.4%	31.2%	36.6%

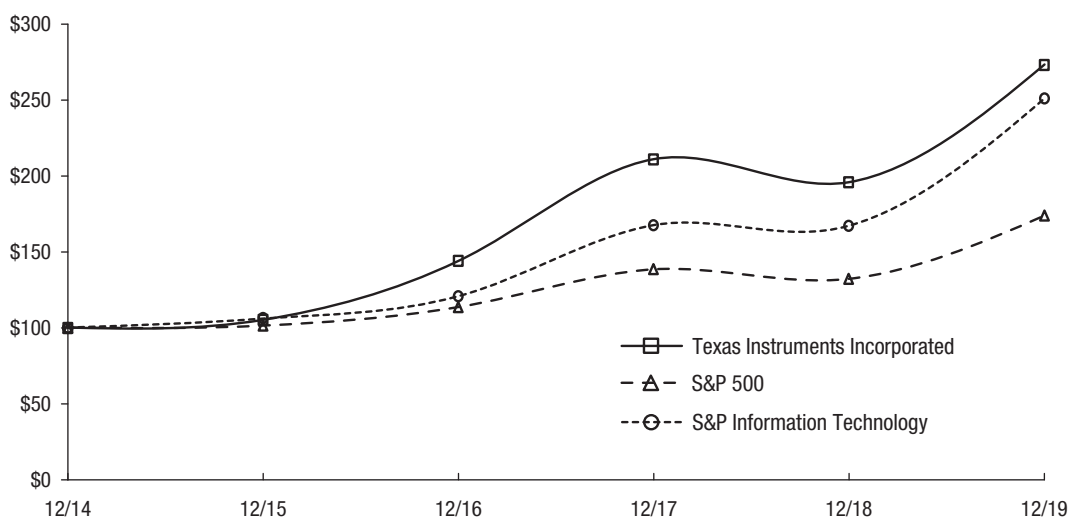
OTHER INFORMATION

Comparison of total shareholder return

This graph compares TI's total shareholder return with the S&P 500 Index and the S&P Information Technology Index over a five-year period, beginning December 31, 2014, and ending December 31, 2019. The total shareholder return assumes \$100 invested at the beginning of the period in TI common stock, the S&P 500 Index and the S&P Information Technology Index. It also assumes reinvestment of all dividends.

COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN

Among Texas Instruments Incorporated, the S&P 500 Index and the S&P Information Technology Index



	12/14	12/15	12/16	12/17	12/18	12/19
Texas Instruments Incorporated	100.00	105.18	143.80	211.07	195.88	273.37
S&P 500	100.00	101.38	113.51	138.29	132.23	173.86
S&P Information Technology	100.00	105.92	120.59	167.42	166.94	250.89

Notice regarding forward-looking statements

This Annual Report includes forward-looking statements intended to qualify for the safe harbor from liability established by the Private Securities Litigation Reform Act of 1995. These forward-looking statements generally can be identified by phrases such as TI or its management “believes,” “expects,” “anticipates,” “foresees,” “forecasts,” “estimates” or other words or phrases of similar import. Similarly, statements herein that describe TI’s business strategy, ability to generate free cash flow in the future, outlook, objectives, plans, intentions or goals also are forward-looking statements. All such forward-looking statements are subject to certain risks and uncertainties that could cause actual results to differ materially from those in forward-looking statements. For a more detailed discussion of these factors see the risk factors discussion that begins on page 7 of this report. Forward-looking statements in this report are made only as of the date of this report and we undertake no obligation to update them to reflect subsequent events or circumstances.

Board of directors, executive officers

Directors

Richard K. Templeton
Chairman of the Board,
President and
Chief Executive Officer,
Texas Instruments Incorporated

Mark A. Blinn
Retired President and
Chief Executive Officer,
Flowserve Corporation

Todd M. Bluedorn
Chairman of the Board and
Chief Executive Officer,
Lennox International Inc.

Janet F. Clark
Retired Executive Vice President
and Chief Financial Officer,
Marathon Oil Corporation

Carrie S. Cox
Retired Chairman of the Board
and Chief Executive Officer,
Humacyte, Inc.

* Effective April 1, 2020

Martin S. Craighead
Retired Chairman of the Board
and Chief Executive Officer,
Baker Hughes Incorporated

Jean M. Hobby
Retired Partner,
PricewaterhouseCoopers LLP

Michael D. Hsu *
Chairman of the Board and
Chief Executive Officer,
Kimberly-Clark Corporation

Ronald Kirk
Senior Of Counsel,
Gibson, Dunn & Crutcher LLP

Pamela H. Patsley
Retired Chairman of the Board
and Chief Executive Officer,
MoneyGram International, Inc.

Robert E. Sanchez
Chairman of the Board and
Chief Executive Officer,
Ryder System, Inc.

Executive officers

Richard K. Templeton
Chairman of the Board,
President and Chief
Executive Officer

Niels Anderskov
Senior Vice President

Ahmad S. Bahai
Senior Vice President
and Chief Technology Officer

Ellen L. Barker
Senior Vice President
and Chief Information Officer

Kyle M. Flessner
Senior Vice President

Haviv Ilan
Senior Vice President

Hagop H. Kozanian
Senior Vice President

Rafael R. Lizardi
Senior Vice President
and Chief Financial Officer

Amichai Ron
Senior Vice President

Cynthia Hoff Trochu
Senior Vice President,
Secretary and
General Counsel

Julie M. Van Haren
Senior Vice President

Darla H. Whitaker
Senior Vice President

Bing Xie
Senior Vice President

TI Fellows

TI Fellows are engineers, scientists or technologists who are recognized by peers and TI management for outstanding performance. Fellows are elected or re-elected every five years based on their exceptional leadership in driving deeper levels of innovation that make TI stronger.

Announced in 2019: Alfred J. Griffin, Jr. named Senior Fellow; Jaiganesh Balakrishnan, Danielle Griffith and Xiaolin Lu named Fellows.

Stockholder and other information

Stockholder records information

Stockholder correspondence:
Computershare
P.O. Box 505000
Louisville, KY 40233-5000

Overnight correspondence:
Computershare
462 South 4th Street, Suite 1600
Louisville, KY 40202

Toll free: 800-981-8676

Phone: 312-360-5151

Website: www.computershare.com/investor

Online inquiries: <https://www-us.computershare.com/investor/contact>

SEC Form 10-K

A copy of the company's annual report to the Securities and Exchange Commission on Form 10-K is available on the Investor Relations website at www.ti.com/ir.

Copies of the Form 10-K, including a list of exhibits and any exhibit specifically requested, are available without charge by writing to:

Texas Instruments Investor Relations
P.O. Box 660199, MS 8657
Dallas, TX 75266-0199

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