

COMPANY PROFILE

Texas Instruments Incorporated

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COMPANY OVERVIEW

Texas Instruments Incorporated (Texas Instruments, TI or 'the company') is a designer and producer of semiconductors. The company primarily provides analog integrated circuits (ICs) and embedded processors. TI sells its products to original equipment manufacturers (OEMs), original design manufacturers (ODMs), contract manufacturers and distributors through direct sales force and third-party sales representatives. It has business presence across the Americas, Asia, Europe, the Middle East and Africa. The company is headquartered in Dallas, Texas, the US.

The company reported revenues of (US Dollars) US\$13,370 million for the fiscal year ended December 2016 (FY2016), an increase of 2.8% over FY2015. In FY2016, the company's operating margin was 35.9%, compared to an operating margin of 32.9% in FY2015. In FY2016, the company recorded a net margin of 26.9%, compared to a net margin of 23% in FY2015.

The company reported revenues of US\$3,693 million for the second quarter ended June 2017, an increase of 8.6% over the previous quarter.

KEY FACTS

Head Office	Texas Instruments Incorporated P.O. Box 660199 12500 Ti Boulevard Dallas Texas Dallas Texas Texas USA
Phone	1 972 9952011
Fax	
Web Address	www.ti.com
Revenue / turnover (USD Mn)	13,370.0
Financial Year End	December
Employees	29,865
NASDAQ Ticker	TXN

SWOT ANALYSIS

Texas Instruments Incorporated (Texas Instruments) is engaged in designing and making of semiconductors. The company primarily provides analog integrated circuits (ICs) and embedded processors. Consistent focus on research and development enables the company to launch innovative products that increase its revenue and market share. However, intense competition will lead to pricing pressures, thereby decreasing the profitability of the company.

<p>Strength</p> <p>Robust manufacturing capabilities in the analog market Strong research and development capabilities Diversified end markets and geographic reach</p>	<p>Weakness</p> <p>Lack of scale as compared to peers</p>
<p>Opportunity</p> <p>New product launches Positive outlook for global semiconductor industry Internet of things offers robust growth opportunities</p>	<p>Threat</p> <p>Intense competition Stringent regulatory environment Exchange rate fluctuations</p>

Strength

Robust manufacturing capabilities in the analog market

Texas Instruments has strong manufacturing capabilities in the analog market. The company owns and operates large semiconductor manufacturing facilities in North America, Asia, Japan and Europe. These include both wafer fabrication and assembly/test facilities. The company maintains sufficient internal manufacturing capacity to meet the majority of its production needs. Large manufacturing capacity allows the company to have greater control over its operational costs. In addition, the company follows a robust capital management strategy with focuses on building its manufacturing base at an opportunistic cost and position well ahead of demand. Moreover, only half of its under-utilization expenses on the facilities are cash-based, thus reducing the negative impact on its cash flow. Furthermore, to supplement its internal manufacturing capacity and maximize its responsiveness to customer demand and return on capital, it utilizes the capacity of outside suppliers, commonly known as foundries, and subcontractors. In addition, the company operates design centers strategically located around the world, which provide design, engineering and product application support as well as after-sales customer services. Since the company owns much of its manufacturing requirements, during periods of increasing product demand, its fixed costs are spread over increased output thus benefiting its profit margins. The company's robust manufacturing capabilities enable it to keep control on the quality and quantity of the output. It also enables it to ramp up production during periods of higher demand, potentially enhancing its margins.

Strong research and development capabilities

The company makes significant investments in research and development (R&D) to develop new technologies and products to meet changing customer demands. Over the last several years, Texas Instruments has been focused on enhancing its products and launching new innovative solutions through consistent R&D investment. It invests more than US\$1 billion each year to develop new products. The company's primary area of R&D investment includes analog and embedded processing. The company's total R&D expenses were US\$1.37, US\$1.28 billion and US\$1.36 billion in FY2016, FY2015 and FY2014 respectively. In FY2016, the R&D expenses accounted for approximately 10.2% of Texas Instruments' overall revenues. The company conducts most of its R&D internally. However, it also engages with a wide range of third parties, including software suppliers, universities and select external industry consortia for joint product development. The company also collaborates with its foundry suppliers on semiconductor manufacturing technology. Strong R&D capabilities enable the company to develop innovative products, which allow it to remain at the forefront of its respective businesses and differentiate its offerings in a highly competitive market.

Diversified end markets and geographic reach

The company serves diversified markets. Over the last few years, Texas Instruments has strategically expanded its focus on the number of end markets. The company offers semiconductor solutions for diversified end markets, including industrial (33% of Texas Instruments' product revenue in FY2016); personal electronics (26%); automotive (18%); communications equipment (13%); enterprise systems (6%); and others, including calculators (4%). In addition, Texas Instruments has a diversified geographic presence. The company has strategically expanded its presence across the globe. It operates in more than 30 countries worldwide and has expanded its sales networks in the emerging markets of China, India and Eastern Europe over the last few years. Texas Instruments has operations in the US (generated approximately 12.6% of the company's revenue in FY2016), Japan (7.8%), Asia (excluding Japan) (60%), Europe, Middle East and Africa (17.9%), and rest of the world (1.7%). Diversified end markets and geographic reach reduce dependence on any single market for revenues. Furthermore, they offer access to a wider customer base and enable continued inflows resulting in a strong revenue position for the company.

Weakness

Lack of scale as compared to peers

Texas Instruments has limited scale of business operations as compared to its peers operating in the same industry. The company's competitor Qualcomm Incorporated recorded revenue of US\$23,554 million in the year ended September 2016. Similarly, its other competitor, Intel Corporation recorded revenue of US\$59,387 million in the fiscal year ended December 31, 2016. Comparatively, the company recorded revenues of US\$13,370 in FY2016. The company's lack of scale compared to its peers can prove to be a competitive disadvantage in achieving large contracts and pursuing large scale expansion plans.

Opportunity

New product launches

New product launches enable the company to expand its business and geographic presence. For instance, In July 2017, the company launched new single-chip buck-boost battery charge controllers. In March 2017, it introduced a digital-to-analog converter (DAC) that combines industry-leading precision performance with simpler power-supply design. In January 2017, the company launched the new DLP Pico 0.33-inch full-HD chipset, the smallest 1080p display solution. Earlier in October 2016, Texas Instruments launched the fully integrated power management solution for double data rate (DDR) 2, DDR3 and DDR3L memory subsystems in automotive and industrial applications. Similarly in July 2016, it introduced the first double-data-rate (DDR) memory linear regulator for space applications. During the same month, the company launched the fastest 5.7-kVRMS isolated dual-channel gate driver, the first of a new gate driver family in Texas Instruments' isolation portfolio. Consistent new product launches helps the company to retain its customer base and compete effectively with its peers.

Positive outlook for global semiconductor industry

The company is a major player in the global semiconductor industry. According to World Semiconductor Trade Statistics (WSTS), the global semiconductor market was valued at US\$335 billion with stable growth in 2016. Furthermore, the market is expected to witness a growth of 6.5% in 2017 and further 2.3% in 2018 to reach a value of US\$361 billion and US\$369 billion, respectively. According to WSTS, in 2017, sensors, analog, and memory devices are expected to witness major growth. The growth in the market is expected across all geographies, including the America and Asia-Pacific. The company has facilities in more than 30 countries and about 85% of its revenue is derived from shipments to locations outside the US. Therefore, positive outlook for global semiconductor industry could create demand for the company's products.

Internet of things offers robust growth opportunities

The market for Internet of Things (IoT) has been growing strongly over the past few years. According to an in-house research report, the IoT market is expected to reach US\$662 billion in 2021 from US\$157 billion in 2016, growing at a CAGR of over 33% during 2016-21 period. Furthermore, it is estimated that over 20.8 billion devices will be connected by 2020, compared to 6.4 billion devices in 2016. According to the company, embedded market, which includes IoT, provides a market opportunity of US\$30 billion by 2020. The company has been focusing on these markets to leverage growth opportunities offered by the end markets. The company has a robust portfolio of solutions for the IoT market, including nodes, gateway, routers, and cloud. In addition, its SimpleLink portfolio consists of low power wireless connectivity solutions which help develop and connect anything to the IoT. The company is well positioned to tap the growing markets and enable revenue growth in the future.

Threat

Intense competition

Texas Instruments operates in a highly competitive environment. The analog and embedded processing markets are highly fragmented. As a result, the company faces significant global competition from large

and small companies in each of those markets, including both broad-based suppliers and niche suppliers. Its competitors also include emerging companies, particularly in Asia that sell products into the same markets in which Texas Instruments operates. The competitive performance in the semiconductor market generally depends on several factors, including the breadth of product line, the strength and depth of the sales network, technological innovation, technical support, customer service, quality, reliability, price and scale.

The primary competitive factors for the company's analog products include design proficiency; a diverse product portfolio to meet wide-ranging customer needs; manufacturing process technologies that provide differentiated levels of performance; applications and sales support; and manufacturing expertise and capacity. Texas Instruments' analog competitors include Analog Devices, Freescale Semiconductor, Infineon Technologies, Intersil, Linear Technology, Maxim Integrated Products, NXP Semiconductors, Qualcomm, and STMicroelectronics, among others. The primary competitive factors for the company's embedded processing products are the ability to design and manufacture products; system-level knowledge about targeted end markets; installed base of software; software expertise; applications and sales support; and a product's performance and power characteristics. Texas Instruments' primary competitors for embedded processing products include Atmel, Freescale Semiconductor, Microchip Technology, NXP Semiconductors, and STMicroelectronics, among others. Intense competition could lead to pricing pressures, thereby decreasing the profitability of the company.

Stringent regulatory environment

The company is subject to complex laws, regulations and policies and risks associated with international political, economic or other conditions. Texas Instruments' has facilities in more than 30 countries worldwide and a large portion of its revenues comes from shipments to locations outside the US; in particular, shipments of products into China. The company's global operations exposes it to complex laws, regulations and policies relating to, for instance, trade and export controls, anti-bribery, antitrust and privacy. Violations of or changes in these laws, regulations and policies could result in fines, penalties, and sanctions that could adversely affect the company's results of operations. Operating internationally also exposes Texas Instruments to political and economic conditions, security risks, health conditions and possible disruptions in transportation, communications and information technology (IT) networks of the various countries in which it operates. Any of these could result in an adverse effect on the company's business operations and financial results. In addition, the company must confirm the manufacture and distribution of semiconductors to various laws and adapt to regulatory requirements in all countries as these requirements change. If the company fails to maintain compliance with applicable regulations, it may be forced to recall products and cease their manufacture and distribution, and could be subject to civil or criminal penalties.

Exchange rate fluctuations

Texas Instruments has facilities in more than 30 countries worldwide, and derived 85% of its revenue from locations outside the US in FY2016. In FY2016, it sourced about 20% of its total wafers from external foundries and 40% of its assembly/test services from subcontractors. Certain operations of the company are conducted in foreign currencies, such as Japanese Yen, and Euro. A rising percentage of Texas Instruments' business is from customers in Asia. In addition, certain of the company's R&D and manufacturing facilities, as well as suppliers to the company, are also located outside the US. Managing

the company's global operations presents challenges, including global uncertainties, varying regional and geopolitical business conditions, and fluctuations in interest rates and currency exchange rates. If the US dollar weakens significantly compared to the other foreign currencies the company's profitability will be adversely impacted. At the end of FY2016, the company had forward currency exchange contracts outstanding with a notional value of US\$494 million to hedge net balance sheet exposures.

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