

# Texas Instruments Corp (NASDAQ: TXN)



Sector: Information Technology

Fair Value	Current Price	52w High	52w Low	P/E	Market Cap	Dividend Yield	Beta
\$141.00	\$120.51	\$132.20	\$87.70	21.98	\$110.37B	3.04%	1.21

## Business Description:

Texas Instruments is a designer and manufacturer of high-quality processors. They have two main segments of which they own 18% market share in: analog and embedded processors. With over 100,000 customers, they have the most loyal and diversified customer base of any major semiconductor company. Their broad product portfolio can meet their customer's needs better than their competitors. They have a resolute management with an emphasize on shareholder value and free cash flow. TXN manufactures 40% of inputs in house, 40% from subcontractors, and 20% from external foundries.

## Industry Trends:

The semiconductor industry is highly cyclical considering the impact of rapidly changing technological capabilities. Often, companies with low inventory turnover ratios are highly susceptible to write-downs and losses. High cash balances are necessary hedges to prevent insolvency during economic downturn. Global markets, especially in Eastern Asia, provide firms with cheaper labor as well as competition and buyers, all of which must be addressed by large scale US firms in order to remain competitive. Protectionist trade policy has hindered TXN's ability to gain access to cheaper inputs, lowering their bottom line.

## Investment Thesis:

Semiconductors are extremely complex tools which enable creative design and computing. TXN's products lead the industry in quality, which is evident in their long lifespans and durability. TXN has superior returns on capital compared to both their competitors and the broader market. TXN has potential for growth with emerging technologies which will lower cost of sales or increase demand for analog and embedded processors. These technological changes are the adoption of 300mm silicon wafers, wide bandgap semiconductors, automated driving, IoT, and 5g.

## Valuation Assumptions:

WACC: 9.0%  
Perpetuity Growth Rate: 3.0%  
Margin of Safety: 19%

## 5-Year Share Price Performance vs. S&P 500:



## Competitive Advantage and Analysis

TXN's products are open source, which allows its customers to invest their own R&D. Customer manipulated code allows for customization and optimization, which increases the lifespan of the products. With a diverse product portfolio, customers often buy multiple processors to accomplish their varying and ever-changing needs. Management deliberately enters markets where they will have dominate market share, and does not hyperextend. Their unique hybrid manufacturing strategy gives them control over the quality and quantity of their inputs.

## Risks:

The most relevant risks and considerations for Texas Instruments include, but are not limited to:

- The "Semiconductor Cycle" has a major influence on swaying demand.
- Geopolitical uncertainty from trade tensions, patent protections, and consumer spending.
- Substantial competition from large and small corporations domestic and abroad.
- Concern Moore's Law will flatten and processor capabilities will decelerate.

## Corporate Social Responsibility Highlights:

- 88.89 Sustainalytics ESG Rank – higher than industry average.
- \$33.4 million in total philanthropic giving, including \$22.8 million in education and 173,439 employee volunteer hours.

## Report Prepared By:

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Sources: Bloomberg, Texas Instruments