

Company: Texas Instruments	Ticker: TXN	Price: \$145.00	Industry: Technology Sub Industry: Semiconductors
Target Price: \$166.79 Stop Loss: \$116 52 Week High/Low: \$200.40/\$144.46	TTM P/E: 17.69 Forward P/E: 18.05 EPS: 9.26	Beta: 1.00 Credit Rating: Aa3 Rating Outlook: Stable	Market Cap: 144.75B Avg. Vol. (12 M): 5.8M Div. Yield: 3.20%

#### Company Background:

TXN is a leading semiconductor manufacturing company that primarily produces analog and embedded processing semiconductors, with analog semiconductors making up most of its revenue. TXN is the market share leader in the analog subsector of the semiconductor industry. Customers of TXN produce electronics, machinery, and other products by utilizing those semiconductors. The company has a customer base of over 100,000 people that is well diversified, with its biggest customer making up less than 10% of their demand.

#### Industry Outlook:

The semiconductor industry tends to be very cyclical, and we are now approaching the trough period in the cycle. The global semiconductor industry is poised for continued long-term, robust growth on the back of industry competition, emerging technologies, and consistent R&D spending. Major product innovations are expected to bolster the industry, as products become more capable of meeting customer demands. Government incentives will encourage the strengthening of domestic semiconductor capabilities. The increased digitization of society has led and will continue to lead to downstream market expansion (smartphones, electronics, computer manufacturing). Lastly, products that use chips are requiring even more chips to function (chip content increases), further driving demand for semiconductors.

#### Investment Thesis:

TXN's ability to leverage strong pricing power with its vast customer base positions the company to continue increasing profit margins. TXN's resilient business model and vast manufacturing and technological capabilities will sustain demand and promote stability throughout troughs in the semiconductor business cycle. The growth of diverse end markets provides TXN with more channels to sell its vast and superior product portfolio. Lastly, TXN's commitment to returning value to long-term shareholders reflects a disciplined capital management approach conducive to stability and growth.

#### Investment Risks:

The large number of players in both the analog segment and broader industry cause intense technological and pricing competition. The semiconductor industry tends to be highly cyclical, due to fierce competition, globalization, and product development. Increasing tensions between the U.S., China, and other countries poses uncertainty to overseas operations and sales. The fractured and fragile semiconductor global supply chain was exposed during the pandemic and could result in further shortages in the future. Patents, copyrights, trademarks, and other measures are crucial to maintaining a competitive advantage and maintaining the edge in IP can be difficult.

#### Takeaway's From Last Two Quarter Investor Call Transcript:

- Capex is expected to be rising to about \$3.5 billion over the next 5 years due to the heavy investments in the six new fabrication plants, while this may hurt free cash flow Texas Instruments sees this as a good investment as they can then alleviate reliance on third party producers
- Along with capital expenditures rising depreciation and amortization is expected to follow on a straight-line method until 2025-2026 to about \$2.5 billion
- The CHIPS act is going to help immensely when it comes to tax write offs for their new plants and they believe their tax rate will be about 14% for the year 2022
- The combination of the investment tax credit and the grants for R&D will make the U.S. semiconductor industry more competitive, but Texas Instruments believes they are positioned well due to their long-term success and customer satisfaction

#### 5-Year Financial Performance:

	2017	2018	2019	2020	2021
Revenue	14,961	15,784	14,383	14,461	18,344
Revenue Growth	11.90%	5.50%	-8.88%	0.54%	26.85%
Operating Profit	6,412	7,040	5,975	6,116	9,149
OP as a % of Revenue	42.86%	44.60%	41.54%	42.29%	49.87%
NI	3,682	5,580	5,017	5,595	7,769
P/E Ratio	23.98	16.72	24.48	28.71	22.76
Return on Common Equity	35.07	57.30	55.71	61.55	68.70
Return on Assets	21.61	32.09	28.54	29.94	35.29
Return on Capital	26.17	39.92	35.50	36.82	41.90
Return on Invested Capital	27.14	40.27	34.72	35.12	41.38

#### Discounted Cash Flow Valuation:

Implied Equity Value and Share Price	
PV of Cash Flows	\$ 30,487.3
PV Terminal Value	\$ 120,014.9
Enterprise Value	\$ 150,502.2
Plus: Cash and Cash Equivalents	9,740.0
Less: Total Debt	7,800.0
<b>Implied Equity Value</b>	<b>\$ 152,442.2</b>
Fully Diluted Shares Outstanding	914
<b>Implied Share Price</b>	<b>\$ 166.79</b>
Current Stock Price	153.72
Margin of Safety	8.50%
Implied Perpetuity Growth Rate	
Terminal Year FCF	\$ 10,756.77
WACC	9.0%
Terminal Value	\$ 184,657.81
PGR	3%

Relative Valuation:

Ticker	Company	Market Cap	Revenue FY21	Enterprise Value	Total Debt	P/E	EPS	EV/EBITDA	EV/Revenue	Dividend Yield	ROE	ROA	5yr Beta
<b>Peers</b>													
ADI	Analog Devices Inc	73,078	7,318	77,806	6,253	16.26	9.49	17.31	7.01	2.10%	6%	4%	1.14
SWKS	Skyworks Solutions Inc	13,067	5,109	14,807	2,402	9.46	11.11	6.90	2.75	3.00%	32%	22%	1.20
NXP	NXP Semiconductors	36,512	11,063	44,391	11,160	13.54	14.21	9.70	3.59	2.40%	24%	9%	1.50
STM	STMicroelectronics	29,983	12,761	28,877	2,383	10.75	3.84	6.45	2.04	0.93%	23%	13%	1.33
QRVO	Qorvo Inc	12,917	4,015	14,070	2,126	8.35	8.06	6.96	2.11	0.00%	23%	14%	1.37
<b>TXN</b>	<b>Texas Instruments</b>	<b>140,455</b>	<b>18,344</b>	<b>139,312</b>	<b>7,244</b>	<b>16.61</b>	<b>9.26</b>	<b>12.65</b>	<b>7.11</b>	<b>3.20%</b>	<b>69%</b>	<b>35%</b>	<b>1.00</b>
Mean		51,002	9,768	53,210	5,261	12.50	9.33	10.00	4.10	1.94%	29%	16%	1.26
Median		33,247	9,191	36,634	4,328	12.15	9.38	8.33	3.17	2.25%	23%	14%	1.27

Total Return % / ESG Analysis

	TXN	Semiconductor Industry	S&P 500
YTD	-17.17%	-39.78%	-20.19%
LTM	-15.51%	-29.28%	-15.90%
3 Years	33.74%	40.62%	26.50%
5 Years	61.92%	82.80%	48.31%

