

# **Executive Summary**

## **Objective**

The objective of this analysis was to estimate the intrinsic equity value of Tesla, Inc. using a Discounted Cash Flow (DCF) methodology. The model evaluates historical performance, forecasts future operating cash flows, and assesses valuation sensitivity under varying cost of capital assumptions.

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## **Key Findings**

- The company demonstrates strong historical growth in operating cash flows.
  - Forecasts indicate continued expansion driven by revenue growth and operating leverage.
  - Terminal value contributes a significant portion of total firm valuation, consistent with high-growth companies.
  - Sensitivity analysis shows the share price is most responsive to changes in WACC and terminal growth assumptions.
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## **Conclusion**

Based on the base-case assumptions, the model suggests that the company maintains strong long-term value potential. However, valuation remains highly sensitive to macroeconomic conditions, capital costs, and long-term growth sustainability.

**\$ in millions**

	2018A	2019A	2020A	2021A	2022A	2023E	2024E	2025E
Cashflow fror	\$2,098.00	\$2,405.00	\$5,943.00	\$11,497.00	\$14,724.00	\$17,668.80	\$21,202.56	\$25,443.07
Growth	NA	14.63%	147.11%	93.45%	28.07%	20.00%	20.00%	20.00%
Capex	\$2,101.00	\$1,327.00	\$3,157.00	\$6,482.00	\$7,158.00	\$8,231.70	\$9,054.87	\$9,960.36
Growth	NA	-36.84%	137.91%	105.32%	10.43%	15.00%	10.00%	10.00%
<b>FCF</b>	<b>-\$3.00</b>	<b>\$1,078.00</b>	<b>\$2,786.00</b>	<b>\$5,015.00</b>	<b>\$7,566.00</b>	<b>\$9,437.10</b>	<b>\$12,147.69</b>	<b>\$15,482.72</b>
% growth	NA	36033.33%	158.44%	80.01%	50.87%	24.73%	28.72%	27.45%
<b>Terminal Value</b>								<b>\$244,255.53</b>

## Valuation Framework

A three-stage DCF approach was used:

1. Historical financial analysis
2. Three-year operating cash flow forecast
3. Terminal value estimation

Projected cash flows were discounted using the company's Weighted Average Cost of Capital (WACC) to derive enterprise value, which was then adjusted to estimate equity value and implied share price.

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### Cost of Capital (WACC)

WACC was calculated using:

- Cost of Equity: Estimated using market-based return expectations
- Cost of Debt: Based on the company's borrowing cost
- Capital Structure Weights: Derived from market values

This blended rate reflects the firm's overall financing cost and risk profile.

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## Forecast Assumptions

The forward projections were developed using:

- Historical operating performance trends
- Revenue growth momentum
- Operating efficiency patterns
- Industry positioning and competitive landscape

Given the company's strong market position and relatively limited direct competition in key segments, a stable long-term growth assumption was applied in the terminal period.

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## Terminal Value

Terminal value was estimated using the Gordon Growth Method, assuming the business reaches a stable growth phase beyond the explicit forecast horizon. This component represents the majority of firm value, which is typical for growth-oriented companies.

<b>Discounting</b>		1	2	3
Discounting Factor		0.896	0.802	0.718
PV of cashflow	-\$3.00	\$1,078.00	\$2,786.00	\$5,015.00
PV of TV		\$7,566.00	\$8,451.97	\$9,743.88
<b>Total Cash flow</b>				\$11,122.56
				\$175,469.66
				\$204,788.07

<b>Enterprise Value</b>	\$204,788.07
Debt	\$5,740.00
Cash and cash equi	\$16,253.00
<b>Equity Value</b>	\$215,301.07

Avg shares O/S	3,475
Share Price	\$61.96

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Risk free rate according to treasury	2.99%
Cost of debt	7.30%
Beta	1.74
Debt	\$5,740.00
Market Risk Premium	5.25%
Equity	\$72,913.00
Total Value	\$78,653.00
Cost of equity	12.125%
Tax Rate	22.000%
WACC	11.66%
Growth for terminal value	5.00%

## Sensitivity Analysis & Insights

### Sensitivity Analysis

To evaluate valuation risk, sensitivity analysis was performed on:

- Weighted Average Cost of Capital (WACC)
- Terminal growth rate

This analysis highlights how changes in macro conditions or company risk profile could impact the implied share price.

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### Key Insights

#### 1. WACC Sensitivity

The valuation is highly sensitive to changes in WACC. A lower discount rate materially increases equity value, while a higher rate compresses valuation.

## 2. Growth Expectations Matter

Because a large portion of value comes from terminal value, long-term growth assumptions significantly influence the price target.

## 3. Operating Momentum

Historical cash flow trends support the base-case forecast, but sustained execution will be critical to justify current growth expectations.

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## Risks to Valuation

Key risks include:

- Macroeconomic interest rate changes
- Execution risk in scaling operations
- Competitive pressures over time
- Margin compression risk

Growth	Sensitivity Analysis											
	WACC											
\$61.96	5.00%	6.00%	7.00%	8.00%	9.00%	10.00%	11.00%	12.00%	13.00%	14.00%	15.00%	
3%	\$210.84	\$140.88	\$105.91	\$84.93	\$70.96	\$60.99	\$53.51	\$47.70	\$43.06	\$39.26	\$36.10	
5%	#DIV/0!	\$405.23	\$203.20	\$135.86	\$102.21	\$82.03	\$68.58	\$58.98	\$51.78	\$46.19	\$41.72	
6%	-\$395.34	#DIV/0!	\$397.77	\$199.53	\$133.46	\$100.44	\$80.63	\$67.43	\$58.01	\$50.95	\$45.46	
7%	-\$193.28	-\$387.84	#DIV/0!	\$390.52	\$195.96	\$131.12	\$98.71	\$79.27	\$66.32	\$57.07	\$50.14	
9%	-\$92.25	-\$123.48	-\$185.96	-\$373.45	#DIV/0!	\$376.60	\$189.12	\$126.63	\$95.40	\$76.66	\$64.18	
10%	-\$72.04	-\$90.44	-\$121.10	-\$182.45	-\$366.55	#DIV/0!	\$369.92	\$185.83	\$124.48	\$93.81	\$75.41	

