

Valuation and Analysis of Equity Value of Tesla

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Abstract: Tesla has conquered the electric vehicle market in its two-decade history. Key market indicators like stock price, sales units, and customer alignments signify a company on an upward trajectory. Its stocks soared in 2021, and Tesla became a trillion-dollar entity. The research topic will analyze Tesla's financial the electric vehicle market to forge a basis for future projections. By many measures, Tesla is in an excellent financial position. EVs demand is at historical highs, and future predictions are superb; its EV technologies, like batteries and charging stations, are optimal. It has diversified its production hubs to include Asia and Europe. The paper analysis Tesla's SEC filing to comprehend valuation, profitability, and prospects.

Keywords: balance sheet, income statement, cash flow statement

1. Introduction

Tesla, Inc. is an American company that primarily manufactures and sells electric vehicles (EVs). It is famous for EV series like models X, Y, S and 3 that have experienced market success. Tesla deserves credit for demonstrating that EVs have market viability; established car makers like GM and Toyota are following Tesla's lead and bolstering EV investments. Tesla wields 65% of the EV market and has sold 3 million EV units in 2022. The firm will continue to thrive in the EV segments because it outpaces other makers in battery technologies, has modern assembly lines in the US, China, and Germany for EV assemblies, and has customer credibility [1]. Tesla currently grapples with the financial challenge of its stocks losing 50% plus of value. Stock price and market capitalization have fallen to \$137.8 and \$431.7 billion, respectively. The research method focuses on Tesla's financial statement analysis for 2020 and 2021. The study is significant because Tesla's performance has serious implications for other EV makers. Its success or failure has ripple effects for the entire industry.

2. Balance Sheet Analysis

The EVs market is experiencing a significant boom induced by a desire to ditch the environmentally unsustainable fuel-run vehicles and government incentives; Tesla has a command in this dispensation [2]. EVs are automobiles' future, and all automakers are redirecting investment into their production. Public and private entities are making ambitious commitments to reduce emissions, and EVs are central to achieving goals. According to Bloomberg 2022, EV sales will reach 20 million units by 2025 [1]. The forecasted demand increments explain why Tesla opened a new assembly line in Berlin to back up its facilities in the USA. EV demands will be greater among advanced countries as they

have the broad infrastructure to supplement EVs like charging. Emerging nations will lag in the EV revolution, and Tesla should make for market forays.

Tesla's industry prospects are favorable due to its strong brand and diverse product lineups. It has a better reputation that eclipses other EV makers. Strong branding is why Tesla garnered \$44 billion in EV sales for 2021 despite lacking a functional marketing department. The firm has many roadworthy EVs compared to rivals in the development phase. Its various products, like batteries, SUVs, and trucks, give it financial resilience. It accords the enterprise a revenue backup when its primary products report slumps—the projected spike in competition's Tesla's biggest threat to industry prospects. The firm should expect market share reductions as Ford and GM models make market forays.

The balance sheet communicates to stakeholders a firm's assets and liabilities standing. Successful entities exhibit a trend of increasing assets and plummeting liabilities. When the reverse happens, the enterprise absorbs unsustainable debts that might tilt it to bankruptcy. According to the 2021 annual report, Tesla has \$62 billion, \$30.5 billion, and \$30.2 billion in assets, liabilities, and stockholder equity. This section utilizes financial ratios to dissect Tesla's performance.

2.1. Analysis of Asset Items and Liabilities

The general trends from these items are as follows. First, Tesla's assets have gradually increased over the last three years. They rose from \$34 billion in 2019 to \$52 billion in 2020 and \$62 billion in 2021 [3]. The positive variance arises from the increasing demand for Tesla cars from consumers. It forced production system revamping by acquiring additional assets for needs fulfillment. The initiation of a Berlin factory signifies how Tesla bolsters its assets portfolio to fulfill greater demand. Notable items in the asset section are the cash equivalents, which total \$17.6 billion for the 2021 cycle. They supplement Tesla's cash needs as they are readily convertible to satisfy expansive specifications. Secondly, the liabilities have mildly increased by \$2 billion in the past three years. They rose from \$26.1 billion (2019), \$28.4 billion (2020), and \$30.5 billion in 2021 [4]. Tesla's debt acquisition to fund further growth explains the increments. Liquidity and leverage ratios also help in the balance sheet analysis.

Table 1: Current ratio (CR).

	2020 (\$ million)	2021 (\$ million)
Current assets (CA)	26 717	27 100
Current liabilities (CL)	14 248	19 705
CR = CA /CL	1.875 or 187.5%	1.375 or 137.5 %

Tesla has an excellent current ratio that exceeds the industry benchmark of 100%. The firm exhibits financial resilience because its 2020 CR exceeds 2021. Pandemic-induced business disruptions compelled many enterprises to run negative CR for that period [5]. They had to dispose of their current assets to fulfill pending bills due to sales revenue drawdowns. The above-average CR ratios for the two years imply that Tesla has sufficient money to fulfill recurring obligations like workers' remuneration, supplier dues, and taxes [6]. Tesla shareholders should not worry about liquidity shortcomings that might trigger defaults. An indication of financial woes is when a firm resorts to borrowings for operational costs or makes unexplained delays. Tesla's average cash equivalents of \$18 billion for the past two years provide an improved cushion against the predicament. In addition, Tesla has market leverage to circumvent to overcome liquidity challenges. It can promptly mobilize cash through stock disposals or borrow sustainably from lenders to plug shortfalls.

Table 2: Debt ratio.

	2020 (\$ million)	2021 (\$ million)
Total liabilities (TL)	28 418	30 548
Total assets (TA)	52 148	62 131
DR = TL/TA	0.545	0.492

The average 50% ratio signifies that Tesla is a highly leveraged entity that overprioritizes debt in funding plans. Tesla prefers borrowing over equity disposals in funding needs. Even though the strategy saves the company from distorting ownership arrangements, it exposes Tesla to interest costs. Large debts are detrimental to enterprises because they pile servicing interests. It evolves to an unsustainable situation where an enterprise apportions most of its inflows to repayments. Such entities cannot prosper due to debt trapping. Tesla remains on a sustainable financial trajectory, so the ratio should not jolt its investors; big entities always leverage their vast balance sheets for borrowings [6]. Small firms do not enjoy such economies of scale and exhibit debt averseness. Investors utilize debt ratios to assess the possibilities of an enterprise sliding into bankruptcy. The chances of Tesla sliding into these predicaments are remote due to sufficient collaterals and cashflows. Tesla's 2021 EV sales of \$44 billion are adequate to clear these debts and retain surpluses. Its asset holding is double the debts; Tesla will meet its obligations even in a hypothetical situation of simultaneous debt recalls.

Tesla has a stable financial outlook, espoused by its balance sheet items like inventory, plant, property, and equipment (PPE). PPE increased substantially from \$10.3 billion in 2019 to \$18.9 billion in 2021 [3]. It indicates that Tesla is generating tangible value for stakeholders to justify their increments. PPE investments allowed Tesla to bolster EV unit sales to 936,000 plus in 2021, a 50% increment from the prior year. Inventory has mildly increased in the assessment years. The firm has low underperforming stock that will expose it to losses.

2.2. Analysis of Liability Items

Tesla's cumulative current liabilities have increased by \$4 billion in three years. They increased from \$10.7 billion in 2019 to \$14.2 billion in 2020, and then to \$ 19.7 billion in 2021 [4]. A mix of factors like increasing market capitalization, pandemic, and credit risk declines explains the trend. Tesla's market reach, illustrated by EV sales, has been upward for the past five years. The firm relies on credit to scale operations and matches customer expectations. Pandemic-inflicted operational difficulties prompted entities to resort to borrowing for survivability. Tesla was no exception, as it had to temporarily suspend operations in its primary hubs to adhere to guidelines. Tesla had revenue shortfalls in the 2020 cycle since it sold 0.5 million car units over an anticipated target of one million.

A current liability item that Tesla should monitor is the account payable. It increases with considerable variance relative to other entries. It rose by \$2.3 billion in 2020 and \$3.97 billion in 2021 [4]. Tesla should consider remedial actions like setting a ceiling or restructuring to address creditors. Ceilings foster debt sustainability since corporates assess credit utility before acceptance. There are also tolerable units of what an enterprise can accommodate. The long-term liabilities at Tesla are manageable as they only account for 30% of the entire burden. Tesla's liabilities should not ignite stakeholders' concerns as the company has a track record of prompt settlements. It took the firm less than five years to fully settle a \$465 million bailout.

3. Income Statement Analysis

The income statement helps stakeholders dissect an enterprise's revenue generation and expenditures. It presents the enterprise's profits/losses in an assessment year [7]. Shareholders always prefer profits

as they increase their prospects of garnering dividends. Tesla's three-year income statement indicates a loss of \$862 million for 2019; a profit of \$721 million for 2020; and a \$5.5 billion net income for 2021.

3.1. Profit Part

Tesla works to garner sustainable profits, deliver stakeholders' returns, and justify going concern prospects. Here is a summary of Tesla's inputs that drive profitability.

Table 3: Profit chart.

	2019 (\$ million)	2020 (\$ million)	2021 (\$ million)
Revenue	24 578	31 536	53 823
Cost of revenues	20 509	24 906	40 217
Expenses	4 138	4 636	7 083
Profit / (loss)	(862)	721	5 519

Revenues, revenue costs, and expenses determine Tesla's profits. The consistent increment of revenues from \$ 24.5 billion in 2019 to 53.8 billion in 2021 is commendable [3]. Firms work to optimize or exceed revenue targets in every financial year to guarantee superior profits. The potential for Tesla to grow its revenues is omnipresent due to the burgeoning demand for EVs globally. Tesla alone doubled EV sales to 936222 units in 2021 from 499535 the previous year [4]. A \$22 billion revenue surge is not coincidental but a product of Tesla's strenuous efforts to revamp capacity and align demands. As the leading EV maker, Tesla is in a perfect position to leverage the green revolution and grow revenues. Consumers are reverting to EVs as an environmental-saving measure. The emission that fuel-run vehicles produce worsens the climate. Environmental consciousness is why the federal authorities give citizens tax rebates amounting to \$7500 to stimulate demand [8].

Revenue costs are where Tesla performs dismally on the profit index. From the table, the costs almost eclipse collectible revenues for the period. Tesla will continue to generate unsatisfactory revenues if it does not pursue a containment strategy. Tesla's cumulative costs for the three-year duration are sustainable; they are less relative to the enterprise's cash endowment. The net profit ratio (NPR) is necessary for contextualizing Tesla's profits.

Table 4: Net profit ratio.

	2020 (\$ million)	2021(\$ million)
Net income (NI)	721	5519
Sales revenue (SR)	31 536	53 823
NPR = NI / SR	2.28%	10.25%

NPR assesses an enterprise's profit situation after fulfilling all expenses plus taxes. Tesla's 10.25% NPR makes it a lucrative entity to investors. The dismal output from the prior year stems from pandemic limitations.

3.2. Expenses

Tesla's significant expenses from the annual reports; include research and development (R&D) and selling, administrative, and general (SAG) expenses. R& D expenses continue to increase from \$1.3 billion in 2019 to \$2.5 billion in 2022. The increment is justifiable for innovativeness and handling

competitors. Tesla relies on R & D investments to rejuvenate its innovations and alignment with consumer needs [9]. Innovativeness is evident in Tesla designs like the Cyber Truck and the integration of automation features into Tesla models. Research is Tesla's potent weapon to outmaneuver rivals in the EV domain. SAG expenses have modest increments. They rose from \$2.6 billion in 2019 to \$ 4.5 billion in 2021. The increments correspond with Tesla's successes in selling more EVs.

3.3. Interest Expense

Tesla's interest expenses in three years are as follows

Table 5: Interest expenses.

	2019	2020	2021 (\$ million)
Interest expense	\$685 million	\$748 million	\$371 million

Tesla's interest expense has dropped steadily from 2019 to 2021. It indicates that the company is slowly cutting debt addiction as direct financing means. The \$ 371 million that Tesla allotted for debt servicing represent 6.72% of 2021 profits. The expenses do not pose a significant threat to Tesla's well-being as they are manageable. Tesla should execute two strategies to eliminate interest expenses from its books. First, accumulate cash reserves to rival Apple. The reserves give Tesla the agility to self-fund projects over soliciting external financiers.

4. Cashflow statement analysis

A cash flow statement tracks an enterprise's cash inlets and outlets for operating, financing, and investing. It instills accountability in cash expenditures in order to reduce waste [10]. Tesla has excellent cashflows with positive cash equivalents at period end. It generated a net cash flow of \$11.5 billion in 2021 compared to \$5.4 billion and \$2.4 billion in the previous two years [4]. It signals a revitalization of company operations leading to more revenues. Tesla's investing activities cash flow is negative, showing a lesser investment return from company projects.

4.1. Financing Part

It focuses on how the organization harnesses funds to finance its core priorities. Tesla mobilizes its cash through a mix of stock issuance and debt. Tesla has generated approximately \$13 billion from stock issuance. It generated \$848 million in 2019 and \$12.26 billion in 2020 from stock disposals [8]. The pandemic compelled Tesla to dispose of a substantial portion of its shares to fulfill short-run cash needs since other options were untenable. Tesla could neither accept bailouts nor high-interest rates that private lenders were offering. Stock options are a cost-efficient alternative that firms should optimize. They have no obligation to repay the amount because stake buyers became owners. Their entitlements are dividends the corporation declares on profitable periods. Secondly, Tesla relies on debt to meet cash shortfalls. In 2019, it borrowed \$ 10.6 billion, \$9.7 billion in 2020, and \$8.8 billion in 2021 [4]. The modest decline in debt issuance over the three years is commendable. It arises from burgeoning sales income from Tesla automobile. It thereby borrows less since sales income plugs the shortfall.

4.2. Investment Part

Tesla invests a substantial portion of its money into PPE and solar energy system purchases. PPE is integral to Tesla's mission to populate public roads with electric cars. It continuously revamps its manufacturing line with newer equipment to expedite production. Its short-term goal is to regularize sales of a million EV units quarterly. The company also channels money into solar systems purchases. It's a diversification initiative that aspires to give Tesla a decisive edge on impending clean energy pivots.

5. Conclusion

Tesla's financial statements exhibit positive improvements over the last two years. Its cumulative assets reached \$62 billion in 2021 compared to \$52 billion in 2020. The trend ensues from the significant upscaling of Tesla's operation to fulfill a growing demand for cars. Shanghai, Texas, and California Tesla plants lead in asset acquisition and upgrades. The assets increment trend will continue as plans to open new production facilities in Europe and Asia. Tesla revenues show an uptick trend; they have risen from \$24 billion in 2019 to \$53 billion in 2021 due to excellent sales. The company has reversed its 2019 loss of \$862 million into a \$5 billion profit for 2021. It has succeeded in giving its stockholders incredible returns. Debt is a slight concern as it has grown by \$2 billion in one year. However, Tesla has made significant strides to justify debt increments and should continue its debt management path. Tesla should not focus on the short-run plummet in stock value because it contains an unexploited potential. The analysis provides confidence that Tesla has a significant potential to continue shining and lead the globe in making the EV transition. Tesla's decisive advantages, like customer traction, innovations, and brand, increase its survivability in a competitive market. Its competitors are established automakers with sufficient resources to outbid Tesla in every parameter. The firm should stick to its pioneer instinct of delivering and innovating despite the pressure. It should never succumb to complacencies and rivals' underestimation. Tesla should refine its battery technologies to facilitate quicker recharging and lengthy mileage to reclaim competitiveness.

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