
| RESEARCH ARTICLE

Stock Valuation of Telecommunication Provider in Saudi Arabia with the Case Study of Tawal Spin-Off of Saudi Telecom Company (STC)

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| ABSTRACT

This study investigates the stock valuation implications of the strategic spin-off plan involving Tawal, the biggest telecom tower infrastructure provider in Saudi Arabia, a 100% owned subsidiary of the Saudi Telecommunications Company (STC). Saudi Public Investment Fund (PIF) has sent a nonbinding offer to acquire 51% of Tawal's shares from the STC group, which is aligned with the Saudi Vision 2030 strategy. The findings of this research contribute nuanced insights into the relationship between spin-offs and stock valuation within the context of the telecommunications industry. By scrutinizing the anticipated impact of the Tawal spin-off on STC stock price, this study provides valuable information for investors and the STC group navigating the strategic decisions and their implications for the stock value. The research employs a comprehensive stock valuation framework with absolute-relative valuation, internal-external analysis, and risk assessment to gauge the potential effects on STC's respective stock values of the Tawal spin-off. Comparative analyses conducted within the telecommunications sector in Saudi Arabia offer valuable benchmarks for assessing the performance of STC Group. According to the intrinsic valuation approach and the Discounted Cash Flow model, STC stock price is undervalued compared to the stock price of 19th November 2023 by 38.3 SAR. Assuming the spin-off failed, obtaining the fair price at 41.5 SAR per share based on the DCF model and 54.2 SAR based on the relative valuation PE ratio. If the Spin-off is agreed upon and concluded, the fair price is valued at 42.6 SAR per share based on the DCF model. Sensitivity analysis and Monte Carlo simulation resulted in two results: the gross profit margin is a sensitive variable of the stock price movement, and the buy option is preferable. In line with that, STC has a solid holding organization, is financially healthy, and has sustained a competitive advantage. STC is expected to deploy the liquidity into investment and expansion in the region and globally, generating a higher return to satisfy the investor interest.

| KEYWORDS

Telecommunication, Spin-off, Stock Valuation, Saudi Arabia

| ARTICLE INFORMATION

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1. Introduction

1.1 Background

Located on the Arabian Peninsula in Western Asia, or the Kingdom of Saudi Arabia (KSA), it is the largest nation in the Middle East, the fifth largest in Asia, and the twelfth largest globally. Saudi Arabia has announced its pathway to the future by launching Saudi Vision 2030 in 2016. The opening represents a comprehensive, transformative, and ambitious strategy to increase the Kingdom's potential for brighter future generations by enhancing competitiveness and building a diversified, inventive, and world-leading nation.

The Public Investment Fund is considered Saudi Arabia's sovereign wealth fund and is among the world's largest sovereign wealth funds. Based on (PIF, 2023), PIF is a significant economic stimulant and works with other parties to realize the Kingdom's Vision 2030. Mohammad bin Salman, the Saudi Crown Prince and chairman of PIF, is in charge of it.

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Saudi Telecom Company (STC) is the largest telecommunication provider in Saudi Arabia and plays a significant telecom enabler in the Middle East region. STC is majority-owned by PIF. In December 2021, the PIF divested a 6% stake to bring its ownership down to 64%. Due to the desire to diversify its investments in line with the Vision 2030 strategy, in October 2022, PIF sent a nonbinding offer to STC to acquire STC's subsidiary, Tawal, with 51% of the shares (Saudi Exchange, 2023).

1.2 Company Profile

Saudi Telecom Company (STC) was established in April 1998 as a Saudi Joint Stock Company under the Royal Decree of the Kingdom of Saudi Arabia. According to the 2022 financial report, STC has recorded a revenue of 48.76 bn Saudi Arabia Riyal (SAR), revenue growth of 7% in 2021-2022, a net profit of 12.39 bn SAR, and an Earnings Before Interest Tax Depreciation and Amortization (EBITDA) margin of 37.2%.

STC is a holding company comprising nine local subsidiaries, four international subsidiaries, three associate companies, and three joint ventures. STC group's portfolio includes various industries, such as telecommunication services, telecommunication infrastructures, information media services, digital payments, distribution, and commercial sectors.

Saudi Telecom Company is a publicly traded company on the Saudi stock market, Tadawul, with code 7010. STC's ownership is distributed among various shareholders, including institutional and individual investors. The ownership structure of a publicly traded company can change over time as shares are bought and sold on the stock market. Major shareholders consist of institutional investors, government entities, and individual investors.

In 2018, Telecommunications Towers Company Ltd. (TAWAL) was launched with a share capital of SAR 200 million by a 100% owned subsidiary of STC. During the first quarter of 2019, the Communications and Information Technology Commission (CITC) approved the necessary operating license for Tawal. Tawal is the first national company to enhance infrastructure and enable telecom service providers with telecom towers. At the end of 2019, STC added the capital of Tawal with an amount of SAR 2,300 million, for a total capital of SAR 2,500 million. Based on (Argaam, 2021), Tawal has attained noteworthy net profit margins of 15% to 20%.

1.3 Business Issue

The Public Investment Fund (PIF) made a non-binding offer to STC in October 2022 to buy 51% of Tawal's shares in exchange for STC keeping 49% of Tawal's shares. The offer is not a legally binding agreement between the parties. It is still contingent on concluding the due diligence and coming to a final, which will be subject to meeting all regulatory requirements set forth by pertinent authorities, including the approval of the General Authority for Competition, the internal approvals of the relevant parties, and any other conditions agreed to by the parties. Based on the annual report of (STC, 2022), Tawal was valued at SAR 21,940 million at 100% enterprise value on a cash-free and debt-free basis.

Since the announcement of the non-binding offer for Tawal in October 2022, the price of STC stock has been in a downtrend until February 2023, bounced back, and showed a double top pattern in May and July 2023. Until this study was prepared, no announcement related to the Tawal spin-off plan was made. The stock price of 19th Nov 2023 is 38.3 SAR and is still moving in an upside-down trend.

Therefore, the study aims to conduct a company valuation of STC to calculate the fair value with the option of an existing structure without a spin-off or a new structure with a spin-off scenario, identify the sensitive variable that could influence the stock price movement, analyze the chance above the price baseline, provide the recommendation for the investor, company and present suggestion to the further research.

2. Literature Review

This study refers to several literature areas in the spin-off, holding relationship, spin-off financial report implication, Pro Forma financial projection, Saudi financial systems, and previous studies to understand, analyze, and develop the business solution and recommendation. The previous study will add specific literature related to telecommunication industry valuation.

2.1 Spin-Off

Based on (Hitt et al., 2011), three restructuring strategies that the companies defined for their financial structure or line of business are:

- Downsizing. Reduction in the number of personnel at the company (and perhaps in the number of operating units) may or may not affect the mix of companies in the company's portfolio.

- Downscoping. Removing companies' non-core operations through **spin-offs**, divestitures, or other methods
- Leveraged buyouts (LBOs). To take a company private, one party purchases all of its assets (or no longer trades the firm's shares openly)

Research by (Desai et al., 1999) stated that divestitures are all steps taken by a firm for downsizing and/or downscoping. A spin-off definition provided by (Zutter et al., 2019) is a type of divestiture in which the parent company's shareholders receive shares in an operating unit on a pro-rata basis, making it an independent business. The definition added by (Prezas et al., 2015) is that it will separate a specific asset (unit, division, or subsidiary) from the parent company into a different publicly traded business.

As mentioned by (DePamphilis, 2005), diverse and various reasons arise for divesting or spin-off. Changes in corporate strategy or emphasis, the desire to leave underperforming enterprises, a lack of fit, regulatory issues, and easier access to capital markets are among the reasons that are frequently cited. In addition, (Desai et al., 1999) said the divestment's impact on bureaucratic controls will cause the organization to become more focused. Another opinion stated by (Gaughan, 1996) spin-off is that the parent may have a different company roadmap and strategic objectives from its subsidiary, which could experience conflicting goals.

Additional evidence presented by (Caton et al., 2012) indicates that the average finding may be deceiving because particular spin-offs seem to be gaining in value while others appear to be falling. They conclude that some spin-offs are valuable, especially if the spun-off entity engages in a business distinct from the parent company's primary activity. A study by (Liedgren et al., 2008) shows that when the spin-off was downscoping (Hitt et al., 2011), there were significant performance improvements for both the parent company and the subsidiary. However, no such improvements could be found if the spin-off only resulted in downscaling (Hitt et al., 2011).

2.2 Spin-Off Financial Report Implication

A corporation that controls the votes of one or more other corporations is known as a group or holding company (Zutter et al., 2019). Based on (IFRS, 2023), the subsidiary is the company under the Group's control. Meanwhile, an associate is an entity that the investor has a significant influence on and has the ability to participate in financial and operational policy decisions made by the investee without having the authority to directly or jointly control. When one company directly or indirectly owns the majority of another's outstanding voting stock, consolidation makes sense (Beams et al., 2018).

The consolidated financial statements of the Group consist of the financial information of the Company and its subsidiaries. The consolidated financial statement's purpose (Beams et al., 2018) is to show the operating results and financial position of a parent company and its subsidiaries as though they were one big business, mainly for the benefit of the parent's owners and creditors. Consolidated financial statements are presumed to have a more significant meaning than separate financial statements.

Regarding the spin-off financial report implication, as stated by (Prezas et al., 2015), the current parent company shareholders receive pro-rate shares of this new independent company. According to (Iasplus, 2023), which refers to IFRS, if a parent loses control of a subsidiary, the appropriate adjustment needs to be made to the financial report:

- Determination of Gain or Loss
- Recognition of Capital Gains or Loss
- Consideration received.
- Derecognition of Assets, Liabilities
- Derecognize any Non-Controlling Interest

Post the spin-off transaction, when an investor indirectly owns twenty percent or more of an investee's voting stock, as described by (Beams et al., 2018), which refers to Accounting Standard Codification (ASC) 325-20-35, the equity method is appropriate.

2.3 Valuation Method

As explained by (Zutter et al., 2019), some investors base their decisions about which stocks to buy and sell on a plan to maintain a diverse portfolio of equities. Some investors trade only specific equities out of a more speculative motive. These investors search for businesses whose shares are misvalued, which indicates that the shares' actual value differs from the price at which they are currently trading. When it comes to stocks, these investors purchase undervalued shares where the market price is lower than the genuine value and sell overvalued shares where the market price is higher than the actual value.

Estimating the firm value may seem challenging, especially when valuing companies with substantial uncertainty about the future, such as receiving offers for restructuring the organization. The market can make mistakes and deviate the value from the actual

condition. Thus, (Damodaran, 2012) suggests three basic approaches used to value the company's stock: intrinsic valuation, relative valuation, and contingent claim valuation. This study focuses on two out of three methods: intrinsic valuation and relative valuation.

- **Intrinsic Valuation**

The intrinsic valuation definition proposed by (Damodaran, 2012) associates an asset's value with two fundamental qualities: its ability to produce cash flows and the associated risk. In its most popular form, intrinsic value is calculated using a Discounted Cash Flow (DCF) valuation, where an asset's worth is determined by taking the present value of its anticipated future cash flows.

- **Relative Valuation**

Referred to (Damodaran, 2012), in calculating relative valuation, the worth of an asset is contrasted with the prices placed on identical or comparable assets by the market.

- **Contingent Claim Valuation**

Contingent claim valuation, defined by (Damodaran, 2012), which this study did not focus on, measures the value of assets that share option characteristics using option pricing models.

2.4 Saudi Arabia Financial System

As mentioned (Al-Tally, 2014), the Saudi Arabian economic market's financial and investment legal system is firmly rooted in Islamic law and regulations and founded on the central tenets of Shariah. According to Shariah, any economic activities must be built on ethical and moral fundamentals and accepted socially. Aligned with (Hamad, 2018), Saudi Arabia is the largest existing economy with a unique institutional environment characterized by the absence of tax systems, an undeveloped bond market, and intensive Islamic financial products and services.

Regarding the company capital structure referred to (Hamad, 2018), the trade-off theory, which this study did not support, contends that raising capital structure debt may result in tax savings. The trade-off theory suggests that Saudi Arabian companies' increased debt in their capital structure does not appear to result in any tax savings. Reducing debt will, therefore, improve a company's financial performance. Therefore, raising money by issuing more shares is preferable to taking on more debt. Sukuk and Murabaha are two commonly used Islamic financial instruments in company capital structures. These instruments provide alternatives to conventional debt financing and contribute to the overall balance and compliance of the company's capital structure.

According to (Zakat, Tax, and Customs Authority, 2020), there is no income tax levied on citizens of Saudi Arabia or the Gulf Cooperation Council (GCC) states. However, national or GCC corporations owned in Saudi Arabia are required by Islamic law to pay zakat based on their net worth. Zakat is calculated based on a company's net worth and is equivalent to 2.5 percent of the Zakat base.

2.5 Previous Study

(Chirputkar et al., 2016) The discounted cash flow approach is most suitable for operators since it is based on the company's cash flows. Aligned with (Ahmed, 2017), who conducted a study covering 26 UK-listed companies in the TMT (technology, media, and telecom) sector, it was shown that analysts prefer the usage of the Price Earnings (PE) Model in the technology sector and discounted cash flow based models are prevalent.

3. Methodology

3.1 Data Collection Method

This research uses data from outside and within companies following valuation methods, which can be used further during business solutions. The population of this study is the three telecommunication companies listed on the Saudi stock exchange, namely STC, Mobily, and Zain. Data have been collected from the company's annual financial reports on (STC, 2018, 2019, 2020, 2021, 2022), (Mobily, 2018, 2019, 2020, 2021, 2022), and (Zain, 2018, 2019, 2020, 2021, 2022)'s website under the investor relationship menu.

Tawal, STC's subsidiary, which was raised as the primary business issue in this study, is a limited company. However, Tawal's financial data was explained briefly in the parent consolidated report. Several relevant assumptions are used to give the justification for the unknown information. Other data sources, such as Damodaran, Global Data, Fintech, Reuters, Yahoo Finance, and other secondary data, were used to adjust the required information and consideration.

3.2 Data Analysis Method

The qualitative and quantitative data were analyzed using several methods to understand, identify, and explore the business issue. A step-by-step analysis was developed on this valuation study within the field of spin-offs of Tawal, the subsidiary of the STC group. The first step analyzes the external analysis, macro, and competitive environment of the business operated by STC group

by using PESTEL and Porter's Five Forces analysis. The second analysis step investigates the company's internal analysis using VRIO and financial ratio analysis. Intrinsic and relative valuations were performed to estimate the stock valuation at a fair price.

In the last approach, risk analysis is required to deal with the uncertainty of how the stock's price value will change as the variable changes. The tornado sensitivity analysis and Monte Carlo simulation were developed with several possible scenarios with multiple variables based on historical data.

3.2.1 Weighted Average Cost of Capital (WACC) Calculation

Weighted Average Cost of Capital, according to (Zutter et al., 2019), is a weighted average of a firm's cost of debt and equity financing, where the weights reflect the percentage of each type of financing used by the firm.

$$r_{wacc} = (w_d * r_d) * (1 - T) + (w_p * r_p) + (w_s * r_{s\ or\ n})$$

While,

T = Tax Rate. This research followed the effective tax rate of tax paid as suggested by (Damodaran, 2012).

r_d = cost of debt. The cost of debt gauges how much it now costs the company to borrow money for funding initiatives. The tax benefit is related to debt. The after-tax cost of debt depends on the tax rate because interest is tax deductible. The after-tax cost of debt is less than the pre-tax cost due to the tax gain that results from paying interest (Damodaran, 2012).

r_{sp} = cost of preferred stock. The rate of return required by investors who hold preferred shares in a company, which this study did not identify due to no preferred shares available.

r_s = cost of common stock/cost of equity. The cost of equity is the rate return obtained as the result of the return investors require on an equity investment in a company. The riskless rate and the risk premium in the Capital Assets Pricing Model (CAPM) and multifactor models, respectively, are required by the risk and return models outlined. They also need betas, which gauge a firm's exposure to market risk (Damodaran, 2012).

w_d = proportion of debt in capital structure.

w_p = proportion of preferred stock in capital structure

w_s = proportion of common stock equity in capital structure

$$w_d + w_p + w_s = 1.0$$

3.2.2 Pro Forma Financial Projection

Pro Forma analysis is required to construct the intrinsic valuation to forecast the financial statement. The way to create pro forma financial statements based on (Zutter et al., 2019) is to analyze the historical correlations between essential accounts on the balance sheet and income statement and speculate whether these correlations will continue. The following steps are performed to conduct Pro Forma projection:

- Estimate Sales projection baseline based on the historical data
- Estimate various accounts of Income Statement and Balance Sheet as a percentage of Sales Method
- Calculate Income Statement projection
- Calculate Balance Sheet projection
- Balance Sheet checking

3.2.3 Discounted Cash Flow Calculation

According to (Damodaran, 2012), the Free Cash Flow to the Firm (FCFF) can be obtained by adding up all claim holders in the company, including common stockholders, bondholders, and preferred stockholders. One approach of the firm's free cash flow method calculates cash flows prior to any projected earnings before interest and taxes and subtracts taxes and reinvestment requirements.

$$FCFF = EBIT (1 - Tax Rate) + Depreciation Amortization - CAPEX - \Delta Working Capital$$

Discounted the firm's value is determined by discounting projected cash flows (DCF) at the weighted average cost of capital (WACC), which is the cost of the various financing sources the company uses, weighted by the proportions of their market values. This free cash flow is left over after all operating costs, reinvestment needs, and taxes have been paid before any payments are made to either debt or equity holders. Since estimating cash flows cannot be conducted forever, (Damodaran, 2012) suggests valuation calculation needs to impose closure in discounted cash flow valuation by stopping your estimation of cash flows sometime in the future and then computing a terminal value that reflects the firm's value at that point.

With the assumption that the firm's cash flows will grow at a constant rate forever in a stable growth rate, with stable growth, the terminal value can be estimated using a perpetual growth model.

$$\text{Value of Firm } (V_C) = \sum_{t=1}^{t=n} \frac{CF \text{ to firm}_t}{(1 + WACC)^t} + \frac{\text{Terminal Value}_n}{(1 + WACC)^n}$$

Because the value of the entire company, V_C , is the market value of the entire enterprise (i.e., of all assets), to find common stock value, V_S , we must subtract the market value of all the firm's debt, V_D , and the market value of preferred stock, V_P , from V_C :

$$\text{Value of Common Stock } (V_S) = V_C - V_D - V_P$$

The stock price valuation is obtained by dividing the Value of Common Stock by the Total Shares of Common Stock:

$$\text{Stock Price} = \frac{\text{Value of Common Stock}}{\text{Total shares of Common Stock}}$$

3.2.4 Sensitivity Analysis

Sensitivity analysis is a variant of scenario analysis that helps highlight areas where risk forecasting is particularly severe. It looks into how changes to a single variable affect the Net Present Value (NPV) and, consequently, the stock price. (Ross et al., 2010). A tornado chart, a classic statistical tool, is mainly used to visualize the calculation of sensitivity analysis and decision-making. (Eschenbach, 2006). Sensitivity analysis is required to test how the changes in stock price projects vary if the variables are changed. This approach can help measure the most influence of the price valuation.

3.2.5 Monte Carlo Simulation

In its simplest form, Monte Carlo simulation is the computer-generated creation of random processes or objects. These entities might appear "naturally" when simulating a real-world system, like the movement of neutrons, a convoluted road network, or the development of the stock market. Due to its versatility and ease of use, the Monte Carlo Model is still one of the most beneficial methods for scientific computing. According to (Kroese et al., 2014), this program randomly generates values for uncertain variables over and over to simulate a model. The simulation requires project practitioners to develop low, high, and most likely cost estimates and correlation coefficients (Zutter et al., 2019).

4. Results and Discussion

4.1 Business Analysis

External analysis using PESTEL and Porter's Five Forces are robust tools for scanning a company's macro and competitive environment. It suggests that the telecommunication sector in Saudi Arabia operates in an attractive business environment driven by high consumer demands, technological innovation, and investment from the GCC countries. Adopting emerging, innovative, and environmental technologies will be crucial to sustain the business continuity of telecommunication providers. However, regulatory and compliance considerations influence the market dynamics. Due to the strong position of the Public Investment Fund (PIF) as the Saudi sovereign wealth fund body, the Tawal spin-off could be concluded soon and will not face any significant issues.

This study uses VRIO and financial ratio analysis for Internal analysis. Both methods are valuable and effective analyses for comprehensively understanding an organization's internal dynamic based on the resources, capabilities, competitive advantage, and financial performance. The VRIO analysis found that STC's resources and capabilities contribute to its sustained competitive advantage. The financial ratio analysis indicates that STC has strong financial performance, is financially healthy, and is effective in its operations. The STC's liquidity ratios are superior to its peers, more than enough to cover the liabilities and reduce the financial risk. However, it shows that the STC did not fully deploy massive liquidity for investing in other revenue sources.

The subsidiary spun-off, Tawal, accounted for the fifth revenue source by 4% of the STC's revenue. The subsidiary spun-off plan may result in lower revenue for STC. However, it will not significantly influence STC's competitive advantage and financial and sustainable performance. The company's profitability, liquidity, solvency, efficiency, and returns on investment are all favorable, contributing to its overall financial strength despite its fifth revenue source subsidiary being spun off.

4.2 Business Solution

Due to the limited availability of data for Tawal, as a private company, this study collects Tawal's financial information from the consolidated report of its parent, STC Group. Based on the (STC financial report, 2022), Table IV.1 below shows that Tawal has proven strong profitability by delivering a gross profit margin of 78% during the last two years.

Table IV.1 Tawal Keys Financial

Accounts	A2021	A2022
Revenue	2,846	2,868
EBITDA	2,237	2,251
Gross Profit Margin	78.6%	78.5%
Assets	12,636	11,933
Liabilities	9,206	8,407
Net Assets	3,430	3,526
PPE, intangible assets, and goodwill	800	995

(STC financial report, 2022)

PIF will buy 51% of Tawal shares, and STC will retain 49% of Tawal shares. The offer does not represent any binding commitment on both parties. It remains subject to completing the due diligence and reaching a final and binding agreement. Tawal's enterprise value was determined at 21,940,000 SAR, 9.2x EBITDA, and 6.2x net assets.

The Author assumed there would be two scenarios that would happen below:

- In the first scenario, no deal will be concluded on Tawal divestment until 2024.
- In the second scenario, the Tawal acquisition by PIF will be approved, processed, and completed in the financial year of 2024.

4.2.1 Scenarios

Each scenario has a different implication regarding organizational structure and financial report to the holding company, STC. This study developed some adjusted assumptions based on the availability of data to construct the scenarios. Table IV.2 describes the Tawal assumption based on the two scenarios developed.

Table IV.2 Scenarios

First Scenario: No deal on the Tawal spin-off concluded	
Assumption	No deal on the Tawal spin-off concluded during the incoming year of 2024.
Company Status implications	Tawal will be retained as STC's subsidiary with a 100% ownership share of STC. There will be no organizational structure changes.
Financial Report implications	The consolidated financial report method is still used to combine the Tawal financial report into STC Group. The STC's consolidated report will retain Tawal's revenue, PPE, capex, assets, and liabilities.
Second Scenario: Tawal spin-off deal achieved	
Assumptions	This scenario assumed the Tawal spin-off would be agreed upon on 20th December 2023 and disposal achieved in 2024. PIF bought 51% of Tawal's shares in cash for 11,189,400 SAR on 1 January 2024, while STC retained 49% of Tawal's shares. This scenario excluded tax and fees from spin-off transactions and pro-rata dividends obtained from the Tawal profit.
Company Status implications	Tawal company status will be changed from STC's subsidiary to STC's associate due to STC group's loss of control of the 51% shares in Tawal.
Financial Report implications	Spin-off transactions will be reported in the financial report on 31 st of Dec 2024.

	<p>The equity financial report method will be applied post-date of disposal.</p> <p>Tawal's revenue will be eliminated from STC's consolidated report, resulting in lower STC revenue in 2024.</p> <p>Tawal PPE, capex, assets, and liability will be shifted from the STC consolidated report, offering greater efficiency on STC holding.</p> <p>Assumed spin-off payment will be paid in cash by 11.1 SAR bn and will be accounted for on 31st December 2024 of the STC's financial report.</p>
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(Author Analysis)

4.2.2 WACC Calculation

The WACC is a crucial component in the discounted cash flow (DCF) valuation method, as it represents the discount rate used to discount future cash flows to their present value.

- **Tax Rate**

All Saudi and GCC companies' shareholders are applied with zakat of 2.5% in accordance with the zakat rules and principles in the Kingdom and income tax of prevailing regulations in the countries of some subsidiaries. Zakat base assessment adds adjusted total shareholder equity and deducts net property, investment, dividends paid, and deferred expense. However, this study follows the Damodaran principle for computation of the firm's WACC using the effective rate of tax paid, resulting in the Effective Tax Rate of 7.7%.

- **Country Risk Premium (CRP)**

The country risk premium is an additional return that investors demand investing in a particular country, taking into account the additional risk associated with that country's economic, political, and financial conditions compared to a risk-free investment. According to (Damodaran, 2023), which studied CRP for all countries, the following Table IV.3 describes Moody's rating, Default Spread, country risk premium, Equity Risk Premium, and risk-free rate for Saudi Arabia as of July 2023.

Table IV.3 Saudi Arabia's CRP

Moody's rating	A1
Default Spread	0.75%
Country Risk Premium	1.07
Equity Risk Premium	6.07%
Risk-Free Rate	3.92%

(Author Analysis)

- **Debt and Equity Capital Structure**

According to (Damodaran, 2012), the company's debt consists of short-term and long-term debt added to short-term and long-term operating lease liabilities. STC's capital structure is considered lower than its peers by keeping total debt at 13,787 SAR million or 15.4% of the total capital structure. Meanwhile, equity accounts accounted for 76,026 SAR million or 84.6% of the total capital structure.

Table IV.4 Debt and Equity Capital Structure

Debt	13,787
Equity	76,026
(Debt+Equity) or Capital Structure	89,812
w_d , proportion of debt in capital structure	15.4%
w_s , proportion of common stock equity in capital structure	84.6%

(STC financial report, 2022)

- **Cost of Equity (CoE)**

The Cost of Equity using the Capital Asset Pricing Model (CAPM) formula was used to calculate the expected return investors require for holding a company's equity. Applying a Risk-Free rate of 3.92%, Company Beta (β) based on (Reuters, 2023) by 0.72, and Equity Risk Premium (ERP) of 6.06%, resulting in the Cost of Equity by 8.3%.

- **Cost of Debt**

The company has a diversified funding base for borrowings: Sukuk (shariah-compliant bond) and Murabaha (shariah cost-plus financing). STC has launched two types of Sukuk: local sukuk-based SAR currency, 5 SAR bn, with ten years maturity, three-month Saudi Arabian Interbank Offered Rate (SAIBOR) + 0.70% profit rate, and international sukuk based on USD currency, 1,2 USD bn (equivalents to 4.6 SAR bn), with ten years maturity, 3.89% profit rate. Hence, due to limited information regarding the yield of maturity of the sukuk, the cost of debt estimation is obtained by applying Damodaran's synthetic rating. With the use of STC company (STC Investor Relations, 2022) Moody's rating of A1, the company spread rating is 1.23%. Applying the Tax Rate of 7.7%, the Risk-Free rate at 3.92%, resulting in the Cost of Debt after Tax by 5.4%.

Applying all the above variables resulted in the STC's WACC (Weighted Average Cost of Capital) at 7.78%. Table IV.5 shows the WACC calculation:

Table IV.5 WACC Calculation

Debt	13,787
Equity	76,026
(Debt+Equity) or Capital Structure	89,812
w_d , proportion of debt in capital structure	15.4%
w_s , proportion of common stock equity in capital structure	84.6%
Effective Tax Rate / T	7.7%
Cost of Debt After Tax (CoD)	5.4%
Cost of Equity (CoE)	8.3%
WACC	7.78%

(Author Analysis)

4.2.3 Pro Forma Projections

As described in Chapter II, Pro Forma analysis enables the projection of future financial performance based on anticipated changes in revenue, expenses, and other key financial metrics. Each scenario has different key points related to the spin-off scenarios.

4.2.3.1 First Scenario Projections

The calculation details of the first scenario's income statement and balance sheet projection are mentioned in Appendix A and B, respectively.

i). Income Statement

Some key points raised in developing the Income Statement of the first scenario:

- The revenue growth is assumed to stabilize at 5.9%, obtained from the average revenue for the last five years.
- In January 2023, land owned by the company in Khobar City was sold at 1,378 SAR million with a book value of 82 SAR million through a public auction. Land selling payment has resulted in a gain of 1,296 SAR million over the book value. The Other Income and Expenses followed pro forma projection by percentage of revenue for the five years by (0.2%). The Other Income and Expenses will be adjusted at 1,176 million SAR.
- Substantial improvement in EBITDA has been recorded in 2022, increasing 9% YtoY from 36.3% to 37.2%. EBITDA is projected to stabilize by 37.6% in the next five years.
- Net Income will grow in 2023 due to the huge amount obtained from land-selling transactions, which increased by 22.1% from 2022. It will follow the nature of the income statement flow, which decreased by -2.2% in 2023 and then stabilized at the growth rate of 6.2%, mainly resulting from the core operating business.

ii). Balance Sheet

Some key points raised in developing the Balance Sheet of the first scenario:

- In 2023, due to the consideration received in cash payment for selling land in Khobar City, cash and cash equivalents increased by 34% from the previous year.
- Short-term and long-term debt will be assumed flat, taken from last year's debt of 2022 in accordance with the maturity of the STC group.
- Some accounts in the balance sheet will be projected for the next five years based on the percentage of revenue calculated in the previous sub-chapter, such as PPE, intangible assets, current assets, and other accounts.
- Trade receivable, inventory, and trade payable will be projected in the function of days against revenue based on the percentage of revenue calculated in the previous sub-chapter.

4.2.3.1 Second Scenario Projections

The calculation details of the second scenario's income statement and balance sheet projection are mentioned in Appendix C and D, respectively.

i). Income Statement

Some key points raised for developing an Income Statement in the second scenario:

- The revenue growth is assumed to stabilize at 5.9%. However, in 2024, STC's revenue will slightly decrease due to the elimination of Tawal's revenue by 2,890 SAR million from the STC's consolidated report.
- In January 2023, land owned by the company in Khobar City was sold at 1,378 SAR million with a book value of the land of 82 SAR million through public auction. Land selling payment has resulted in a gain of 1,296 SAR million over the book value. The adjusted Other Income and Expenses will be 1,176 SAR million in 2023 combined with the pro forma projection by percentage of revenue for the five years by (0.2%).

At the end of 2024, the resulting gains by Tawal 's spin-off will be recognized under the Other Income and Expense account by 9.26 SAR bn, which is obtained from the difference from the cash payment of 11,189 SAR million and the pro-rate net assets for Tawal in 2022 at 1,798 SAR million owned by PIF share. The adjusted Other Income and Expenses will be 9,269 SAR million in 2024, combined with the pro forma projection by percentage of revenue for the five years by (0.2%). Table IV.6 shows the Other Expenses and Income projection of Scenario 2.

Table IV.6 Other Income and Expense Projection

SAR in Millions	A2022	F2023	F2024	F2025	F2026	F2027
Other Income & Expense Projection (-0.2% of revenue)	(922)	(120)	(127)	(134)	(142)	(151)
Added with the Cash received from selling Khobar's Land	-	1,296	-	-	-	-
Added with the Cash from Tawals' spin-off	-	-	9,391	-	-	-
Adjusted Other Income & Expense	(922)	1,176	9,269	(134)	(142)	(151)

(Author Analysis)

- Substantial improvement in EBITDA has been recorded in 2022, increasing 9% YtoY from 36.3% to 37.2%. EBITDA is projected to grow steadily at 37.6% in the next five years.
- Net Income will grow in 2023 and 2024 due to the huge amount obtained from land-selling transactions, which increased by 22.1% from 2022 and 51.2% in 2024. However, It will decrease by -34% in 2025 and then stabilize at the growth rate of 6.2%, mainly resulting from the nature of the core operating business.

ii). Balance Sheet

Some key points raised for creating the Balance Sheet of the second scenario:

- In 2023, due to land selling, a payment of 1,296 SAR million cash was received. Meanwhile, in 2024, cash and cash equivalents will be obtained by 9,269 SAR million due to the Tawal spin-off payment.
- Short-term and long-term debt will be assumed flat, taken from last year's debt of 2022.

Stock Valuation of Telecommunication Provider in Saudi Arabia With the Case Study of Tawal Spin-Off of Saudi Telecom Company (STC)

- Some accounts in the balance sheet will be projected for the next five years based on the percentage of revenue, such as PPE, intangible assets, other current assets, and other non-current liabilities.
- Trade receivable, inventory, and trade payable will be projected in the function of days against revenue.

4.2.4 Stock Valuation

i). Intrinsic Valuation

The stock valuation collected the input from the pro forma analysis, income statement, balance sheet projection, and the free cash flow projected for the next five years. Using the Intrinsic valuation DCF model, the projected future cash flows were discounted back to their present value and subtracted from the market value of debt and cash to obtain the value of the common stock. Then, the fair value of the stock is obtained by dividing the common stock's value by the total share of common stock.

This study uses the GDP of the telecommunication sector in Saudi Arabia to reflect the expected terminal growth rate of the company. According to (Statistical Database, 2023), the average of the Gross Domestic Product at a constant price by economic activities telecommunication sector's GDP obtained of by 2.12%. This value is used to approach the terminal growth rate in developing the discounted cash flow model.

ii). Relative Valuation

This research also uses the Price Earnings Ratio (PE) method for relative valuation for Scenario 1 by comparing the PE ratio of its peers in the market. A higher PE ratio than the trading PE average means the stock price is overvalued. The lower PE ratio than the trading PE average means the stock price is undervalued. According to (Damodaran, 2012), the P/E ratio is commonly used among investors due to the simplicity and intuitiveness of reading a company's financial report. It is also comparable across the companies, reflecting the same industry sector's challenge, risk, and growth.

4.2.4.1 First Scenario

i). Discounted Cash Flow Method

In 2024, the revenue and CAPEX followed the Pro Forma projection formula due to no organizational structure changes without spin-off. By applying the WACC calculation and Cash Flow Pro Forma projection in the first scenario and adding the variable of the terminal growth rate, the fair value obtained using the discounted cash flow model of Scenario 1 is 42.6 SAR per share. It is presented in Figure IV.1 below.

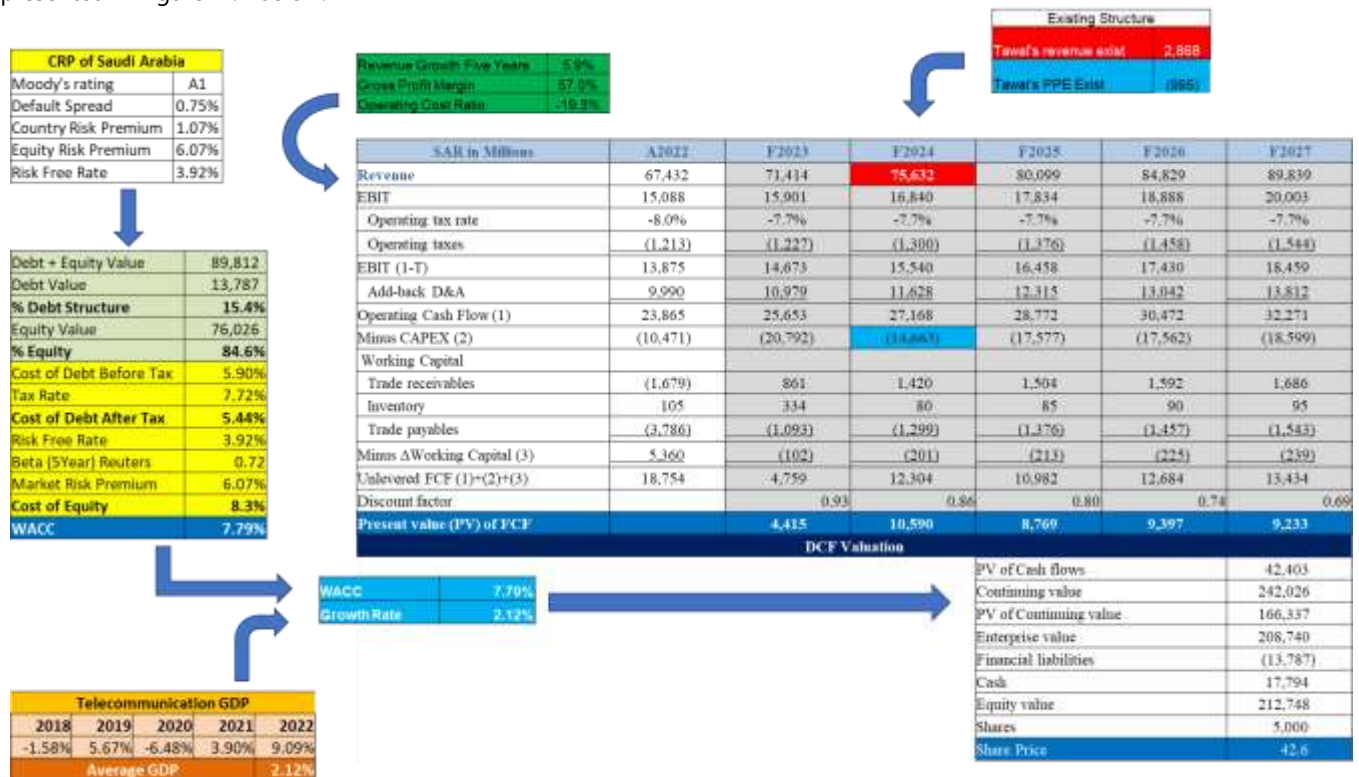


Figure IV.1 Discounted Cash Flow for the First Scenario (Author Analysis)

ii). Price Earnings (PE) Method

Table IV.7 shows the PE ratio for the first scenario. STC, Mobily, and Zain stock prices were calculated from Yahoo Finance, and the average was determined on a yearly basis. Earnings of Mobily and Zain were calculated by applying average growth over the last three years. Based on the relative valuation calculation below using the PE ratio method, STC stock price is adjusted to 54.2 SAR in 2023 and considered undervalued.

Table IV.7 Price Earnings Ratio for the First Scenario

Company		STC	Mobily	Zain
Price (SAR)	2020	38.6	26.8	12.1
	2021	49.2	31.0	13.9
	2022	41.5	37.0	12.3
	2023	40.1	43.9	13.2
Shares		5,000,000	770,000	898,729
Earnings (SAR in Thousands)	2020	11,185,197	783,254	259,945
	2021	11,594,697	1,071,541	214,302
	2022	12,386,922	1,656,940	549,666
	2023	15,198,397	1,743,101	566,156
EPS	2020	2.2	1.0	0.3
	2021	2.3	1.4	0.2
	2022	2.5	2.2	0.6
	2023	3.0	2.3	0.6
P/E	2020	17.2	26.4	41.9
	2021	21.2	22.3	58.3
	2022	16.8	17.2	20.1
	2023	13.2	19.4	20.9
Average P/E of 2023		17.8		
Current Price (SAR)		38.2	47.0	14.1
Targeted Price (SAR)		54.2	40.3	11.2
Result		Undervalued	Overvalued	Overvalued

(Author Analysis)

4.2.4.2 Second Scenario

By applying the WACC calculation and Cash Flow Pro Forma projection in the second scenario, adding the variable of the terminal growth rate, the fair value obtained using the discounted cash flow model of Scenario 1 is 41.6 SAR per share. It is presented in Figure IV.2 below.

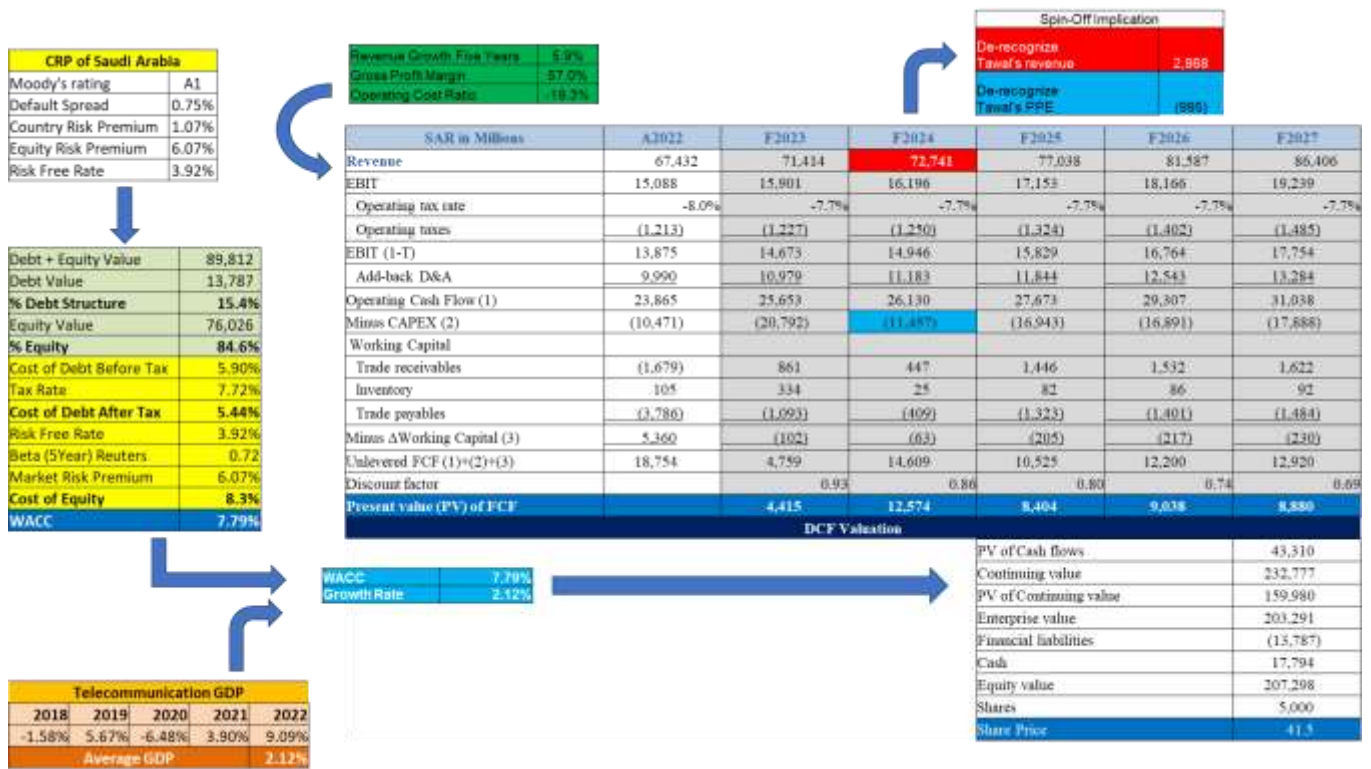


Figure IV.2 Discounted Cash Flow for the First Scenario (Author Analysis)

4.2.5 Risk Analysis

This study integrates sensitivity and Monte Carlo analysis to assess an investment's potential uncertainties and downside risks. The primary goal of sensitivity analysis is to manage uncertainty, which can occur due to changes in the critical assumptions in the constructed valuation. Monte Carlo simulation develops a more realistic and probabilistic approach to valuation, enhancing the depth and accuracy of the risk analysis.

4.2.5.1 First Scenario

Some variables being tested in stock sensitivity analysis are sales revenue, debt/debt plus equity ratio, terminal growth rate, risk-free rate, gross profit margin, and company beta. The change assumption is determined with swing variant increase and decrease by 20% of each variable. Based on the below sensitivity testing, the Gross Profit Margin variable is sensitive to the stock price movement, which changed at 64.8% from the fair value of the first scenario of 42.6 SAR, exceeding the swing percentage at ± 20%.

This study simulated the STC stock price movement with 10,000 iterations based on Monte Carlo simulation using the triangular distribution method of the gross profit margin variable. Data was taken from the historical data of gross profit margins for the last five years. Figure IV.3 shows that sensitivity analysis and Monte Carlo simulation results in the buy option being counted at 86.8%, while hold and sell are determined by 0.1% and 13.1%, respectively. The median is 42.1 SAR, while the mean is 42.0 SAR.

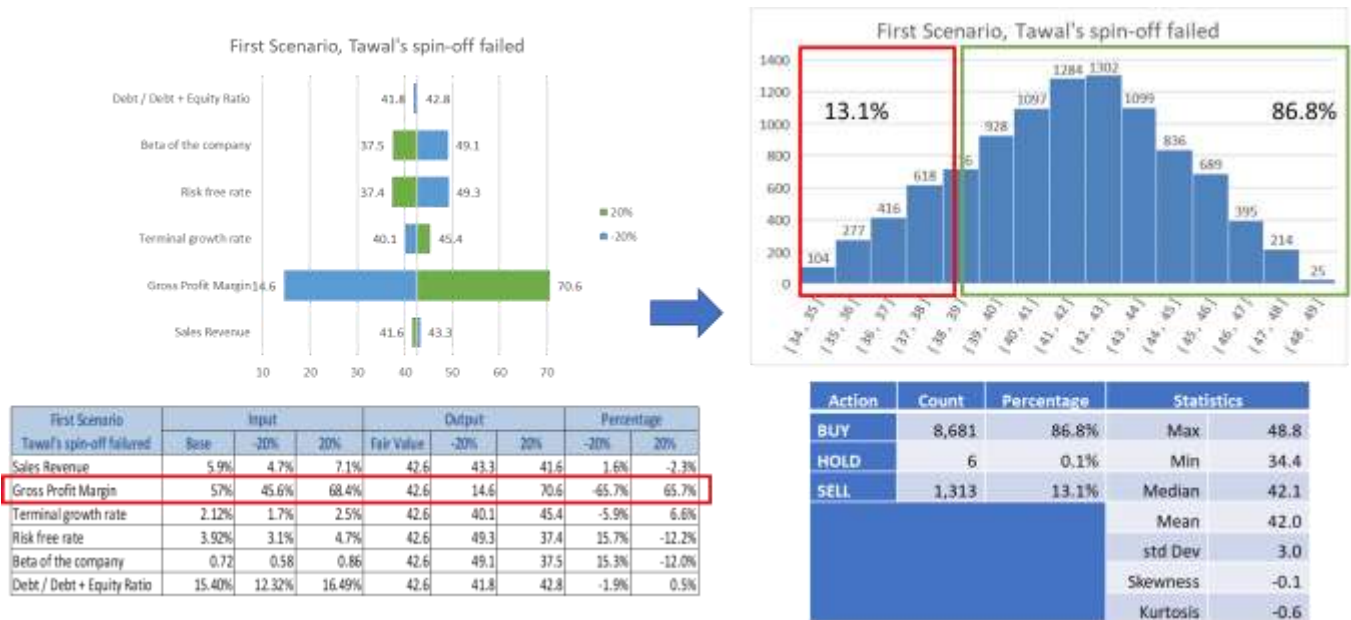


Figure IV.3 Risk Analysis for the First Scenario (Author Analysis)

4.2.5.2 Second Scenario

Some variables being tested in stock sensitivity analysis are sales revenue, debt/debt plus equity ratio, terminal growth rate, risk-free rate, gross profit margin, and company beta. The change assumption is determined with swing variant increase and decrease by 20% of each variable. Based on the below sensitivity testing, the Gross Profit Margin variable is sensitive to the stock price movement, which changed at 65.7% from the fair value of the first scenario of 41.5 SAR, exceeding the swing percentage at ± 20%.

This study simulated the STC stock price movement with 10,000 iterations based on Monte Carlo simulation using the triangular distribution method of the gross profit margin variable. Data was taken from the historical data of gross profit margins for the last five years. Figure IV.4 shows that sensitivity analysis and Monte Carlo simulation result in the buy option being counted at 75.8%, while hold and sell are determined by 0.1% and 24.1%, respectively. The median is 41.5 SAR, while the mean is 41.4 SAR.

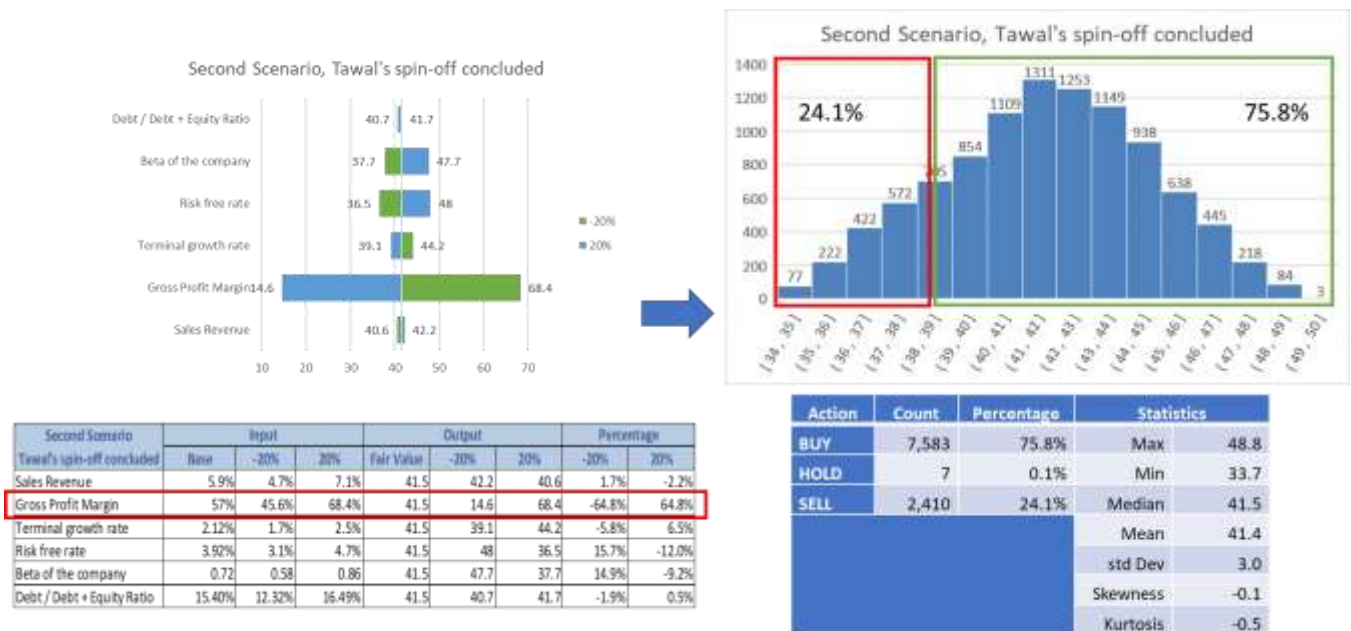


Figure IV.4 Risk Analysis for the First Scenario (Author Analysis)

4.2.6 Business Solution Conclusion

Based on the DCM approach of the above two scenarios, the fair value of the stock price is determined as undervalued whether calculated by the first or second scenario. Table IV.8 shows that the stock price declined by 2.7% from the first scenario at 42.6 SAR to 41.5 SAR from the second scenario. The variance of the fair price calculated with DCM compared with the current stock price per date is 8.7% for the first scenario and 5.9% for the second scenario. According to the tornado chart sensitivity, the gross profit margin variable is the influential variable of the stock valuation, with the movement at 65.7% and 64.8% from the first and second scenarios, respectively, exceeding the swing of ±20% of key inputs.

Table IV.8 shows a valuation analysis of both scenarios.

Scenarios	Relative Valuation PE Ratio		Absolute Valuation DCF		Monte Carlo Simulation		
	Fair Value	Current Price Var.	Fair Value	Current Price Var.	Buy	Hold	Sell
1. Tawal spin-off Failure	54.2	41.5%	42.6	8.7%	86.8%	0.1%	13.1%
2. Tawal spin-off Concluded	-	-	41.5	5.9%	75.8%	0.1%	24.1%
The variance between the two scenarios			1.1				
Percentage difference between two scenarios			2.7%				
Stock Price per 19 th Nov 2023			38.3				

(Author Analysis)

4.2.7 Reason for Declining Value

Based on Table IV.9, the declining stock fair value is detected by the higher Present Value (PV) Continuing Value of Scenario 1 by 6,357 SAR million than Scenario 2, which results in the higher enterprise value of the first scenario by SAR 208,740 million compared to the first scenario by SAR 203,291 million.

Table IV.9 Enterprise Value comparison of both scenarios

Scenario 1	%	SAR in Millions
Enterprise Value	100.0%	208,740
PV of Cash Flows until 2027	20.3%	42,403
PV Continuing Value	79.7%	166,337
Scenario 2	%	SAR in Millions
Enterprise Value	100.0%	203,291
PV of Cash Flows until 2027	21.3%	43,310
PV Continuing Value	78.7%	159,980

(Author Analysis)

In an in-depth investigation in Table IV.10, this study found that the EBIT generated in Scenario 1 is slightly higher by 4% than in Scenario 2 since the projected year 2024. Reverse analysis was conducted to identify the root problem. Table IV.8 shows that the revenue generated in Scenario 1 is slightly higher by 4% than in Scenario 2 since the projected year 2024. It happened due to the lower revenue generated in case the Tawal spin-off concluded that eliminating Tawal’s revenue from the STC financial report in 2024.

Table IV.10 Revenue and EBIT comparison of both scenarios

SAR in Millions	A2022	F2023	F2024	F2025	F2026	F2027
Scenario 1 EBIT	15,088	15,901	16,840	17,834	18,888	20,003
Scenario 2 EBIT	15,088	15,901	16,196	17,153	18,166	19,239
SAR in Millions	A2022	F2023	F2024	F2025	F2026	F2027
Scenario 1 Revenues	67,432	71,414	75,632	80,099	84,829	89,839
Scenario 2 Revenues	67,432	71,414	72,741	77,038	81,587	86,406

(Author Analysis)

5. Conclusion

This paper aimed to perform a stock price valuation of STC, the largest telecommunication provider in Saudi Arabia, with the plan of spinning off its subsidiary, Tawal. The offer came from Saudi Arabia's Government Sovereign Wealth, Public Investment Fund (PIF) to acquire 51% of the total shares of Tawal. This study developed two scenarios to construct the business solution. The first scenario assumed the Tawal spin-off plan failed without organizational and financial report changes. Meanwhile, Scenario 2 assumed the Tawal spin-off concluded during the year 2024, implicating a shift in the company status of Tawal from a subsidiary into an associate in terms of holding STC Group. It also impacts eliminating some accounting accounts from its parent consolidated report.

Different valuation models were used to build the business solution, including intrinsic and relative valuation models. In the first scenario, the spin-off failed, obtaining the fair price of 41.5 SAR based on the intrinsic valuation, DCF model. In line with the relative valuation, the PE ratio calculates the fair share price as 54.2 SAR. In the second scenario, the spin-off concluded, and the share price resulting from intrinsic valuation, the DCF model, is 42.6 SAR. The analysis concluded that the stock price is undervalued compared to the stock price of 19th November 2023 by 38.3 SAR, whether applied in Scenario 1 or 2. The declining fair value by 1.2 SAR from Scenario 1 to Scenario 2 is impacted by the lower revenue of STC in case the spin-off is concluded as STC will not be the majority owner of the company.

This study integrates Sensitivity Analysis and Monte Carlo simulation to assess an investment's potential uncertainties and risks. The sensitivity analysis is performed to identify the sensitive key drivers that can occur due to variable changes. This analysis concluded that the gross profit margin variable is sensitive and could increase the price movement by 60% with a swing variance of +-20%. Monte Carlo simulation was conducted using a triangulation probabilistic approach of the Gross Profit Margin variable to enhance the risk analysis's accuracy. After running 10,000 iterations, it was observed that the buying option is preferable by chance over the stock price baseline at 86.8% and 75.8% in Scenario 1 and Scenario 2, respectively.

5.1 Recommendation for Investor

STC is projected to be profitable, supported by a solid holding organization, healthy finances, superior performance over its peers, and sustained competitive advantage. Investors should monitor closely any potential uncertainties and challenges that can impact the performance of STC stock price due to the Tawal spin-off plan. The STC financial report quarterly, any announcement from the related government bodies, related news, and market reactions should give valuable insight and analysis.

In the last five years, STC has routinely paid the dividend per share by 1.6 SAR annually, with a dividend payout ratio of 65% in 2022, which decreased by 6% from 2021. With the excess cash received due to land selling in Khobar and if the Tawal spin-off plan is concluded, it can be expected that the STC group will distribute the dividend increase.

5.2 Recommendation for the Company

The first scenario considered that Tawal company's spin-off failed to be achieved and STC organization structure would remain the same. Tawal's business would still contribute to STC's revenue as the leader of tower infrastructure providers in Saudi Arabia. The expansion and acquisition performed by Tawal in Pakistan and some European countries will boost Tawal's revenue and increase the STC's revenue. However, STC must consider increasing the gross profit margin of the holding by shifting their CAPEX into OPEX, increasing operation efficiency, and implementing automation and machine learning.

In the second scenario, assuming the Tawal spin-off concludes. Although it still has significant shares, STC will lose power and control over an essential part of its business, the tower infrastructure provider. These deals will release significant capital

expenditures of STC, offering greater efficiency in its operation. With the massive amount of cash received by 11 SAR bn over the Tawal spin-off, STC needs to deploy the liquidity to invest in new domains or expand the business region or globally. New business opportunities in terms of Saudi Vision 2030 have opened and diversified. STC has to be involved in the rapid digital infrastructure investment and expansion such as Neom, Smart City, Submarine cable, etc.

5.3 Suggestion for further research

This study suggests that future studies perform telecommunication valuation with different approaches, such as Average Revenue Per User (ARPU) and Average Cash Margin Per User (ACMPU). Regarding the subsidiary spin-off, the future study needs to analyze the financial performance of both the parent company and the spun-off subsidiary post-spin-off in the telecommunication sector. The SOTP (Sum of The Parts) valuation method will be worth assessing the value of the holding group company by estimating each business segment. Investigating investor perceptions and preferences about telecommunication spin-offs, risk appetite, dividend expectations, and growth prospects influence investment spin-off decisions needs to be explored further.

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References

- [1] Ahmed, N. (2017). Dominant valuation model and valuation model accuracy in UK technology, media, and telecom sector. Adam Smith Business School.
- [2] Al-Tally, H. (2014). An Investigation of the effect of financial leverage on firm financial performance in Saudi Arabia's public listed companies. Business Victoria University.
- [3] Argaam. (2023). Tawal owns 15,000 telecom towers, or 45% of total towers in Saudi Arabia. Argaam. Retrieved December 17, 2023, from <https://www.argaam.com/en/article/articledetail/id/1488600>
- [4] Beams, F. A., Anthony, J.H., Bettinghaus, B., & Smith, K.A. (2018). Advanced Accounting. 13th Edition. Pearson Global Edition.
- [5] Caton, G. L., Goh, J., Kerins, F. (2012). Spin-offs and Operating Performance. Corporate Ownership & Control / Volume 9, Issue 3, 2012, Continued - 2.
- [6] Chirputkar, A. V., Kulkarni P., Vadgama C., Prabhu S. (2016). Valuation Techniques in Telecommunication Industry – An Alternative Approach based on Operating CashFlow and Number of Subscribers. *Telecom Business Review: SITM Journal*
- [7] Damodaran, A. (2023). Price to Earnings Ratio definition. New York Stern University. Retrieved November 10, 2023, from <https://pages.stern.nyu.edu/~adamodar/pdfiles/eqnotes/earnmult.pdf>
- [8] Damodaran, A. (2012). Investment Valuation Tools and Techniques for Determining the Value of Any Asset. 3rd Ed. John Wiley & Sons, Inc.
- [9] Damodaran, A. (2023). Country Default Spreads and Risk Premiums. Last updated July 2023. New York Stern University. Retrieved October 20, 2023, from https://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/ctryprem.html
- [10] Damodaran, A. (2023). Ratings, Interest Coverage Ratios and Default Spread. New York Stern University. Retrieved October 12, 2023, from https://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/ratings.html
- [11] DePamphilis, D. (2005). Merger, Acquisitions, and other Restructuring Activities. Elsevier Academic Press. London, UK.
- [12] Desai, H., Nixon, R. D., Wiggins, R. R. (1999) Downscoping vs. Downscaling Spin-Offs: Parent, subsidiary and proforma performance. Chicago: Presented at the Academy of Management Annual Meeting
- [13] Eschenbach, T. G., (2006). Technical Note: Constructing Tornado Diagrams with Spreadsheets, *The Engineering Economist*, 51(2), 195–204.
- [14] Gaughan, P. (1996), Mergers, Acquisitions, and Corporate Restructurings, John Wiley & Sons, New York
- [15] Hamad, (2018). Corporate Finance Practices and Corporate Governance Effect on Firm Performance and Information Leakage in Saudi Arabia.
- [16] Hitt, M. A., Ireland, R. D., & Hoskisson, R. E. (2011). Strategic Management: Concepts and Cases: Competitiveness and Globalization 9th Edition. South-Western College Pub.
- [17] Iasplus, (2023). Consolidated Financial Statements. Iasplus. Deloitte. Retrieved December 9, 2023, from <https://www.iasplus.com/en/standards/ifrs/ifrs10>
- [18] Kroese, D. P., Brereton, T., Taimre, T., Botev, Z. I. (2014). Why the Monte Carlo method is so important today. *WIREs Comput Stat.* 6 (6): 386–392. doi:10.1002/wics.1314. S2CID 18521840.
- [19] Liedgren, G., Olofsson, J., Zetterlund, S. (2008). Spin-Off performance. Does the subsidiary perform better on its own? Jonkoping International Business School.
- [20] Mobily. (2018, 2019, 2020, 2021, 2022). Financial Annual Report Results. Mobily. Retrieved August 10, 2023, from <https://www.mobily.com.sa/wps/portal/web/corporate/investor-relations/details/performance/financial-results>
- [21] Porter, M. (1979). How Competitive Forces Shape Strategy. Cambridge: Harvard Business Review.
- [22] Prezas, A. P., Simonyan, K. (2015). Corporate Divestiture: Spin-Offs vs Sell-Offs. *Journal of Corporate Finance*. 2015, 34, issue C, 83-107.
- [23] PIF. (2023). PIF Strategy 2021-2025. PIF. Retrieved October 10, 2023, from <https://www.pif.gov.sa/en/Pages/VRP2021-2025.aspx>
- [24] Reuters. (2023). Saudi Telecom Company SJSC. Key Metrics. Reuters. Retrieved October 15, 2023, from <https://www.reuters.com/markets/companies/7010.SE/key-metrics>.
- [25] Ross, S. A. Westerfield, R. W. Jordan, B. D. (2010). Fundamentals of Corporate Finance. 9th-ed. New York. McGraw-Hill-Irwin.

- [26] Saudi Exchange. (2023). Saudi Telecom Company (STC) announces receiving a non-binding offer from the Public Investment Fund to acquire 51% of the shares of Telecommunications Towers Company (Tawal). Saudi Exchange. Retrieved from October 5, 2023, from <https://www.saudiexchange.sa/wps/portal/saudiexchange/newsandreports/issuer-news/issuer-announcements/issuer-announcements-details/>
- [27] Statistical Database. (2023). Growth Domestic Product Growth Rates by Economic Activities. Transport Storage and Communication. Saudi General Authorities for Statistics. Retrieved November 19, 2023, from <https://database.stats.gov.sa/home/indicator/434>
- [28] STC. (2021). Investor Relations 2021. STC. Retrieved August 20, 2023, from https://www.stc.com.sa/content/dam/corporatesite/en/generic/pdf/investor/IR_Release_for_Q4_2020-en.pdf
- [29] STC. (2018, 2019, 2020, 2021, 2022). Financial Statements. STC. Retrieved August 15, 2023, from <https://www.stc.com.sa/content/stcgroupwebsite/sa/en/investors/financial-reports/financial-statement.html>
- [30] Tawal. (2023). Company Profile. Tawal. Retrieved August 24, 2023, from <https://tawal.com.sa/en/document>
- [31] Vision2030. (2023). Saudi Vision 2030. Vision2030. Retrieved August 20, 2023, from <https://www.vision2030.gov.sa/>
- [32] Yahoo Finance. (2023). Saudi Telecom Company (7010.SR). Yahoo. Retrieved July 29, 2023, from <https://finance.yahoo.com/quote/7010.SR/balance-sheet?p=7010.SR>.
- [33] Zain. (2018, 2019, 2020, 2021, 2022). Financial Information Reports. Zain KSA. Retrieved August 20, 2023, from <https://sa.zain.com/en/investors/financial-reports>
- [34] Zakat, Tax, and Customs Authority. (2020). The Executive Regulations for the Collection of Zakat. Zakat, Tax, and Customs Authority. Retrieved December 10, 2023, from <https://zatca.gov.sa/en/RulesRegulations/Pages/systems.aspx>
- [35] Zutter, C. J., Smart, S. B. (2019). Principles of Management Finance. Fifteenth Edition. Global Edition. Pearson.

Appendix A Income Statement of the First Scenario

SAR in Millions	A2018	A2019	A2020	A2021	A2022	F2023	F2024	F2025	F2026	F2027
Revenues	51,963	54,368	58,953	63,008	67,432	71,414	75,632	80,099	84,829	89,839
Cost of goods sold	(21,490)	(21,976)	(24,999)	(29,214)	(30,038)	(30,722)	(32,536)	(34,458)	(36,493)	(38,648)
Gross margin	30,473	32,391	33,954	33,794	37,393	40,692	43,096	45,641	48,337	51,191
Operating expenses	(10,637)	(11,126)	(11,864)	(10,953)	(12,315)	(13,813)	(14,628)	(15,492)	(16,407)	(17,376)
EBITDA	19,836	21,265	22,090	22,841	25,079	26,880	28,467	30,149	31,929	33,815
D&A	(7,591)	(8,785)	(9,359)	(9,713)	(9,990)	(10,979)	(11,628)	(12,315)	(13,042)	(13,812)
EBIT	12,245	12,480	12,731	13,128	15,088	15,901	16,840	17,834	18,888	20,003
Interest expense	(395)	(765)	(624)	(619)	(697)	(689)	(682)	(675)	(668)	(661)
Other income & expense	(22)	(28)	248	126	(922)	1,176	(127)	(134)	(142)	(151)
EBT	11,828	11,687	12,356	12,635	13,470	16,388	16,031	17,025	18,077	19,192
Tax rate	-6.3%	-6.5%	-9.5%	-8.2%	-8.0%	-7.7%	-7.7%	-7.7%	-7.7%	-7.7%
Taxes	(748)	(762)	(1,170)	(1,040)	(1,083)	(1,265)	(1,237)	(1,314)	(1,395)	(1,481)
Net income	11,080	10,925	11,185	11,595	12,387	15,123	14,794	15,711	16,682	17,710

(STC financial report, 2018, 2019, 2020, 2021, 2022, Author Analysis)

Appendix B Balance Sheet of the First Scenario

SAR in Millions	A2018	A2019	A2020	A2021	A2022	F2023	F2024	F2025	F2026	F2027
Non-current Assets										
Intangible assets	9,560	9,907	10,466	10,735	11,775	12,694	13,443	14,237	15,078	15,968
PPE	41,920	45,085	47,848	47,205	46,645	55,539	57,825	62,294	65,973	69,869
Other non-current assets	11,861	18,493	17,799	18,372	17,866	17,866	17,866	17,866	17,866	17,866
Current Assets										
Inventory	787	1,722	1,009	918	1,023	1,357	1,437	1,521	1,611	1,707
Trade receivable	14,493	21,372	16,084	24,857	23,179	24,039	25,459	26,963	28,555	30,242
Cash and equivalents	8,154	8,031	9,004	8,281	17,794	22,650	34,704	45,466	57,960	71,235
Other current assets	22,595	13,717	19,762	17,412	18,938	22,560	23,892	25,303	26,798	28,380
Total Assets	109,371	118,326	121,972	127,779	137,220	156,705	174,627	193,650	213,841	235,267
Current Liabilities										
Trade payable	14,093	18,242	20,297	17,114	20,900	21,993	23,292	24,667	26,124	27,667
Short Financial liabilities	321	1,106	1,061	2,326	1,190	1,190	1,190	1,190	1,190	1,190
Other current liabilities	15,044	13,259	11,534	14,120	14,310	16,644	17,627	18,668	19,771	20,939
Non-current Liabilities										
Long Financial liabilities	3,965	10,504	10,875	10,200	12,597	12,597	12,597	12,597	12,597	12,597
Other non current liabilities	9,286	12,160	12,938	12,633	12,197	14,329	15,175	16,071	17,020	18,026
Equity										
Shareholders' equity	66,662	63,055	65,267	71,386	76,026	89,952	104,746	120,457	137,139	154,849
Total Liabilities & Equities	109,371	118,326	121,972	127,779	137,220	156,705	174,627	193,650	213,841	235,267
<i>Balance Sheet Check</i>	-	-	-	-	-	-	-	-	-	-

(STC financial report, 2018, 2019, 2020, 2021, 2022, Author Analysis)

Appendix C Income Statement of the Second Scenario

SAR in Millions	A2018	A2019	A2020	A2021	A2022	F2023	F2024	F2025	F2026	F2027
Revenues	51,963	54,368	58,953	63,008	67,432	71,414	72,741	77,038	81,587	86,406
Cost of goods sold	(21,490)	(21,976)	(24,999)	(29,214)	(30,038)	(30,722)	(31,293)	(33,141)	(35,098)	(37,171)
Gross margin	30,473	32,391	33,954	33,794	37,393	40,692	41,449	43,897	46,489	49,235
Operating expenses	(10,637)	(11,126)	(11,864)	(10,953)	(12,315)	(13,813)	(14,069)	(14,900)	(15,780)	(16,712)
EBITDA	19,836	21,265	22,090	22,841	25,079	26,880	27,380	28,997	30,709	32,523
D&A	(7,591)	(8,785)	(9,359)	(9,713)	(9,990)	(10,979)	(11,183)	(11,844)	(12,543)	(13,284)
EBIT	12,245	12,480	12,731	13,128	15,088	15,901	16,196	17,153	18,166	19,239
Interest expense	(395)	(765)	(624)	(619)	(697)	(689)	(682)	(675)	(668)	(661)
Other income & expense	(22)	(28)	248	126	(922)	1,176	9,269	(129)	(137)	(145)
EBT	11,828	11,687	12,356	12,635	13,470	16,388	24,783	16,349	17,361	18,433
Tax rate	-6.3%	-6.5%	-9.5%	-8.2%	-8.0%	-7.7%	-7.7%	-7.7%	-7.7%	-7.7%
Taxes	(748)	(762)	(1,170)	(1,040)	(1,083)	(1,265)	(1,913)	(1,262)	(1,340)	(1,423)
Net income	11,080	10,925	11,185	11,595	12,387	15,123	22,870	15,087	16,021	17,010

(STC financial report, 2018, 2019, 2020, 2021, 2022, Author Analysis)

Appendix D Balance Sheet of the Second Scenario

SAR in Millions	A2018	A2019	A2020	A2021	A2022	F2023	F2024	F2025	F2026	F2027
Non-current Assets										
Intangible assets	9,560	9,907	10,466	10,735	11,775	12,694	12,929	13,693	14,502	15,358
PPE	41,920	45,085	47,848	47,205	46,645	55,539	55,577	59,913	63,451	67,199
Other non-current assets	11,861	18,493	17,799	18,372	17,866	17,866	17,866	17,866	17,866	17,866
Current Assets										
Inventory	787	1,722	1,009	918	1,023	1,357	1,382	1,463	1,550	1,641
Trade receivable	14,493	21,372	16,084	24,857	23,179	24,039	24,486	25,932	27,464	29,086
Cash and equivalents	8,154	8,031	9,004	8,281	17,794	23,846	46,535	56,824	68,817	81,562
Other current assets	22,595	13,717	19,762	17,412	18,938	22,560	22,979	24,336	25,774	27,296
Total Assets	109,371	118,326	121,972	127,779	137,220	157,901	181,756	200,029	219,424	240,008
Current Liabilities										
Trade payable	14,093	18,242	20,297	17,114	20,900	21,993	22,402	23,725	25,126	26,610
Short Financial liabilities	321	1,106	1,061	2,326	1,190	1,190	1,190	1,190	1,190	1,190
Other current liabilities	15,044	13,259	11,534	14,120	14,310	16,644	16,954	17,955	19,015	20,138
Non-current Liabilities										
Long Financial liabilities	3,965	10,504	10,875	10,200	12,597	12,597	12,597	12,597	12,597	12,597
Other non current liabilities	9,286	12,160	12,938	12,633	12,197	14,329	14,595	15,457	16,370	17,337
Equity										
Shareholders' equity	66,662	63,055	65,267	71,386	76,026	91,148	114,019	129,105	145,126	162,137
Total Liabilities & Equities	109,371	118,326	121,972	127,779	137,220	157,901	181,756	200,029	219,424	240,008
Balance Sheet Check	-	-	-	-	-	-	-	-	-	-

(STC financial report, 2022, Author Analysis)