



## **Online Assignment Submission**

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**BUSINESS ANALYSIS AND VALUATION OF SAINT-GOBAIN S. A.**

QUEEN MARY UNIVERSITY OF LONDON

THE 23RD OF AUGUST, 2021

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**ABSTRACT**

The competition in this business domain is at high intensity, with widespread Merger & Acquisition activity; this allows companies to achieve the targets they set for themselves, which could not necessarily be fulfilled through organic/internal growth.

To create a credible company valuation, it is essential to have a well-structured process that quantifies the real economic value of the company. The competition in this business domain is at high intensity, with widespread Merger & Acquisition activity; this allows companies to achieve the targets they set for themselves, which could not necessarily be fulfilled through organic/internal growth. The determination of the value of the enterprise is a sensitive topic since the accounting data available is historical, while its estimated value is highly sensitive to forecasting assumptions. These assumptions are indeed critical when assessing the company's ability to generate wealth in the future.

Why is this process necessary in our case? Bottom-up or stock picking financial market investment strategies rely on these analyses to speculate on the company's capacity to over-perform in the future or, at the least, to understand risk sensitivities concerning different fundamental drivers of value. In this paper, we approach the company's valuation through a combination of Discounted Cash Flow modelling, scenario analysis, sensitivity analysis, multiples and Betas – with detailed discussions around the choice of variables and assumptions, which are critical aspects valuation process. The valuation of Saint-Gobain is fundamentally supported by an analysis of the company's sector and the current wider market environment: my investment recommendation is to sell the asset.

**ABBREVIATIONS**

DCF – Discounted cash flows

CAC40 – Cotation Assistée en Continu (Continuous Assisted Trading) benchmark index in the French stock market.

CAPEX – Capital Expenditure

CAPM – Capital Asset Pricing Model

COGS – Cost of Goods Sold

D&A – Depreciation and amortisation

EBIT – Earnings before interest and tax

EBITDA – Earnings before interest, tax, depreciation, and amortisation

ECB – European Central Bank

ERP – Enterprise resource planning

E.V. – Enterprise value

FCF – Free Cash Flow

IRR – Internal Rate of Return

Ke - Cost of Equity

Kd – Cost of Debt

NWC – Net Working Capital

OLS regression -

PPE – Property Plant and Equipment

P/E – Price to Earnings ratio

P/B – Price to Book Value ratio

P/S – Price to Sales ratio

RRR – Required rate of return

T.V. – Terminal Value

WACC – Weighted Average Cost of Capital

€ - Euro currency

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## INTRODUCTION

The paper aims to determine the target share price based on the last trading day of June 2021 using the discounted cash flow model with the support of multiples. The conclusion includes a recommendation on investment that will be reasoned following a consistent pattern. There is a certain amount of subjectivity in the valuation process as some variables depend on discretionary choices that can lead to substantial changes in the final value. Creating a reliable assessment does not result in a rigorous application of the various methods of valuations known but implies the ability to analyse the sector in which the company operates, corporate strategies and the demand.

About the methodology used in this valuation, the free cash flow and the terminal value to the firm is forecasted for five years; these data are then discounted to the current year 2021 using the WACC. According to Euronext, the closing stock price is at € 55.54 on the 30th of June (Source: Euronext and Bloomberg Finance L.P.). The value of future cash flows is determined using the cost of capital, and the forecasting uses historical values that study the sales growth rate trend. The company's capital structure is assumed to remain the same during the next five years. The discount rate is calculated using the weighted average between the cost of equity and the cost of debt (WACC). The cost of equity is calculated by applying the *CAPM*; the cost of debt is calculated using the previous data on interest and debt, including corporate tax. The WACC calculated has been used to then derive the enterprise value. The target price is then the residual value of the company when the net debt is paid, and this way, the cash is liquidated. The sensitivity analysis is then carried out by using the target price and will reflect the changes in the equity share price of Saint Gobain on different WACC, COGS, Exit Multiple and revenue growth combinations. The scenario analysis will show a bull and a bear case that will present differences in the forecast and the calculation of the firm's equity value: this will be used to calculate the firm's intrinsic value and can be compared to the DCF valuation method. In addition, multiples will give another view on the investment decision that will consistently follow the calculations and assumptions made in this valuation process.

## COMPANY OVERVIEW

Saint-Gobain S.A. is a European company specialising in manufacturing construction material established in 1665 in Paris, France, initially producing glass and mirrors. During the industrial revolution in France, the company started to diversify its product line and started the merging phase, acquiring another glass manufacturing French company. In the seventies, in the backdrop of the economic and oil crisis, Saint-Gobain was nationalised (among nine other strategically important French corporates), with the state holding its control for around five years. Since its re-privatisation, Saint-Gobain continued growing, helped by *R&D* but also by expanding production into engineering materials. Saint-Gobain has continued acquisitions of many foreign competitors, allowing the company to extend operations to global markets while also continuing product diversification with the addition of mobility and healthcare. The most significant acquisition was made for continental building products in 2019 of \$1.4 billion, and the most prominent public sale was made in 2015 for €3.3 billion selling Verallia SA. (Saint-Gobain Group Mergers and Acquisitions Summary | Mergr, 2021). Like other top companies, its mission is forward-looking, focusing on sustainability and ethics (Our history, 2021).

## LITERATURE AND DATA SOURCES

As said above, this paper aims to define the fair equity value per share of Saint-Gobain using the *DCF* model. Subsequently, the sensitivity analysis, multiples and Beta calculation operating with specific assumptions will be discussed and explained in the following paragraphs.

The valuation techniques used in this paper follow the guidelines of "Corporate Finance" book 3<sup>rd</sup> edition by Hiller (Hillier et al., 2016) and "Corporate Finance" book 4<sup>th</sup> edition by Jonathan Berk and Peter DeMarzo (Berk and DeMarzo, 2017) with the aid of the Journal of financial economics (Myers, 1977). The data on financial statements is based on the 2020 official annual report provided by Saint-Gobain and forecasted for the next five years. Bloomberg is adopted to ease the valuation process by comparing and checking the data for a professional overview (Source: Bloomberg Finance L.P. 2021). Assumptions on GDP growth and inflation are studied on the Statista website on GDP growth rate from 2016 to 2025 and from Statista inflation rate website (France: gross domestic product (GDP) growth rate 2026 | Statista, 2021), (France: Inflation rate 1984-2024 | Statista, 2021) respectively. The corporate tax rate is obtained by



Saint Gobain Financial statement 2020 (Financial results, 2021). On the 30th of June, 2021, the current stock price is gathered from Euronext from the Bloomberg Terminal. The risk-free rate chosen is the risk-free German rate on the 30th of June 2021, being -0.22% (Source: Bloomberg Finance L.P).

According to the PWC documentation summary, the equity market risk premium lies in a range between 7.25% and 8.25%; the average of the two has been taken (therefore 7.75%) and used for the cost of equity calculation. As a final step, a regression analysis has been conducted and discussed further below in this paper. Therefore using the CAPM model on the equity returns of Saint Gobain against the CAC40 Index imported from Bloomberg Terminal resulted in a levered beta of 1.730.

## METHODOLOGY

The models utilised in this report are mainly DCF and relative valuation methods, as stated previously. The valuation analysis uses the free cash flow from operating activities generated during the firm's lifetime when debt and dividends are paid and discounted at a specific rate. The forecasting time frame is set at five years at a yearly frequency starting from the 30th of June, 2021. The general formula used to value an asset is shown in Table 1.

$$\text{Value of Asset} = \sum_{t=1}^N \frac{E(CF)_t}{(1+r)^t}$$

Table 1. Value of Asset Formula

Where:

- *Value of Asset* is considered as the fair value of the asset at time zero (the date when we commence our valuation).
- $E(CF)_t$  is the expected cash flow in the period  $t$ .
- $t$  refers to the period, which in this paper goes up to five years, annual frequency.
- $r$  is the discount rate that reflects the risks on estimating the cash flows, commonly referred to as opportunity cost.
- $N$  is the lifetime of the asset.

Valuing a company over a long time is challenged by a high degree of uncertainty around micro and macroeconomic forecasts, leading to inaccuracies of the financial performance – this is one of the reasons why, in this paper, we choose to limit the *DCF* model to five years, which is also the average duration of an economic cycle. However, a relatively narrow period of point cash-flow forecasting means that assumptions around the terminal value will have a relatively larger impact on the enterprise value estimate – the exit free cash flow, the long-term growth assumption, and the WACC have critical importance. Short-term considerations on sales growth — of course — play a downsized role: the company is assumed to grow in line with the economy in the long term. In this case, France and Western Europe are considered a good proxy for this. Within the forecast horizon, the *DCF* calculation requires the analyst to discount cash flows with the WACC while the enterprise value is derived by adding up the present values of such flows together with the company's terminal value. The sensitivity analysis explains the limitations of using the DCF model, which shows how relatively small assumptions can significantly impact estimated values. To this end, these assumptions were mapped under bull, bear and live (base) scenarios which allow for a more professional and solid approach.

Finally, multiples are used to compare the firm to competitors with similar businesses, which are also helpful for sanity checking the effect of potential outliers amongst assumptions as well as their consistency, qualitative considerations around the company's strengths and weaknesses. The multiples that have been used in this valuation are E.V./Sales, EV/EBITDA, EV/EBIT, P/E, P/S and P/B.

## EMPIRICAL ANALYSIS AND DATA.

Most of the calculations and methodology will be shown and explained in this session, leading to an investment recommendation. Why is the valuation conducted in general? Apart from an investor's asset allocation decisions, there could be many other reasons: for example, the acquisition motive, mergers, bankruptcy proceedings, liquidations, and many others.

Assessing the historical financial performance of Saint-Gobain from their uploaded Annual Reports from the 1<sup>st</sup> of January 2016 to the 30<sup>th</sup> of June 2021 allows the analyst to identify the company's value drivers. The value drivers can influence the total value of a firm, and they are of two main types: subjective or objective. In this paper, the financial drivers will be objective and easily measured, mainly using drivers such as revenue growth, price change, COGS, stock/creditor/debtor days ratio.

Since 2016, the company had a stable increase in sales volumes throughout the five years until 2020, when COVID19 hit the worldwide market (CODGF | Compagnie de Saint-Gobain S.A. Financial Statements – WSJ, 2021). This trend is taken into consideration to form assumptions for the forecast.

## WIDER MARKET AND MACRO-ECONOMIC CONSIDERATIONS

The decision of whether to invest in a company or not outright needs to take into consideration many drivers that are not at all under the company's control; among these are economic, monetary and geopolitical elements that greatly influence investors' general risk appetite and, therefore, their pricing of risk.

For what concerns Saint-Gobain specifically, the regression shown in the section below when applying the CAPM model quantifies this impact on the company's market price at circa 56% of its total volatility. When deciding whether to recommend an outright long or short in this kind of financial instrument, analysing the wider macroeconomic scenarios' impact on general stock market prices is as important as analysing the specific company dynamics.

The world government's reactions to the COVID19 crisis have been impressively limiting the negative tail risks. In western European countries, governments have supported the weaker components of the economic chain through a combination of forceful fiscal and monetary policy actions. Public deficits remain large and at levels often not seen since the aftermath of World War II, while monetary policy supports the economy through deeply and often record low, negative real interest rates (in a range between negative 2% and negative 3%). Asset prices, especially those publicly traded, are still seeing the further support of Quantitative Easing programs amounting to several trillion dollars worth of purchases across the G10 markets. While these focus mainly on sovereign debt, the spillover effect into equity markets can hardly be denied (Breedon, Chandha and Waters, 2021).

Because of the above actions, the economic rebound since the peak of the COVID crisis in early 2020 is tracking an impressive pace. The June edition of the World Bank's Global Economic Prospects report predicts the strongest post-recession in 80 years, expecting world real GDP to rise by 5.6%, 4.3% and 3.1% in 2021, 2022 and 2023, respectively. Inflation is also projected at levels above central bank targets; however, there is no real consensus amongst economists of how sustained this pace of rise can be (Global Economic Prospects, 2021).

That said, various critical elements can taint this rosy description of the recovery. One such element is the fact that the distribution of the economic recovery is uneven, leaving Developing Economies at a significantly weaker spot given their relative incapacity to tap financial market funding to the same extent as Developed Economies. This results in a combination of higher likelihood of permanent scars to the economy as well as excessive private debt in many cases, increasing the fragility of their system. Another element true for most Developed Economies, employment and GDP levels will remain below their trend level even by 2023. This is a major challenge that world central banks face when deciding, as they currently are, to normalise monetary policy. With inflation pushing its head back up after a long period of depression, some central banks may feel the urge to tighten monetary policy too early, with potentially devastating effects on those weaker components of the economy.

This is the context in which current equity valuations sit. Between the current certainty of the strength of the economic recovery and the uncertainty of the speed of monetary policy normalisation in the future, markets seem adopting a surprisingly complacent attitude. Among the risks represented by the uneven, albeit strong, economic recovery, there is also the risk that investor risk pricing snaps back towards less bullish levels once and if central bank rates normalise and Quantitative Easing is drawn back. The extent of this monetary policy normalisation can go to wider extremes in the scenario where inflation remains sustainably above central bank targets, adding a considerable risk to equity markets so far used to extremely easy monetary conditions.

Given the above, any bullish recommendation on the stock needs to be at peace with a great deal of hard-to-forecast risks at very high price levels.

## WORLDWIDE SEGMENTS

### SALES AND OPERATING INCOME AT GROUP LEVEL BY GEOGRAPHIC AREA

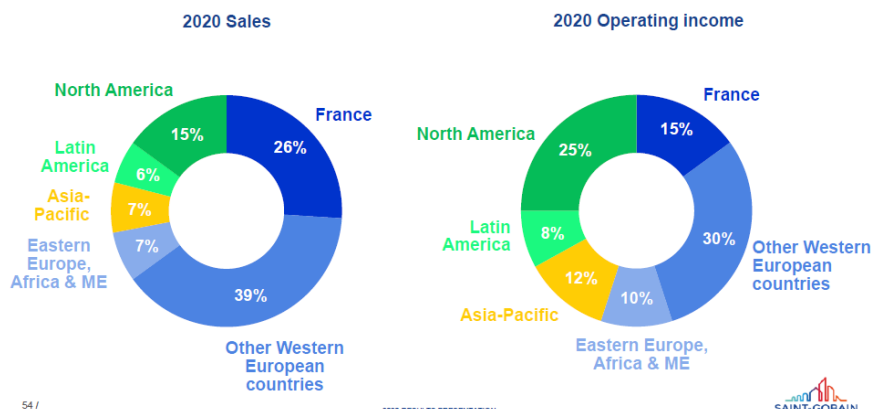


Table 2. Sales and Operating income at group level by geographical area (Financial results, 2021)

In the table above, the graph shows in percentage the amount of sales in the different geographical areas in which Saint Gobain operates. In 2020, Western Europe, including France, both make 65% of the firm's sales. On operating income, the percentage goes to 45%.

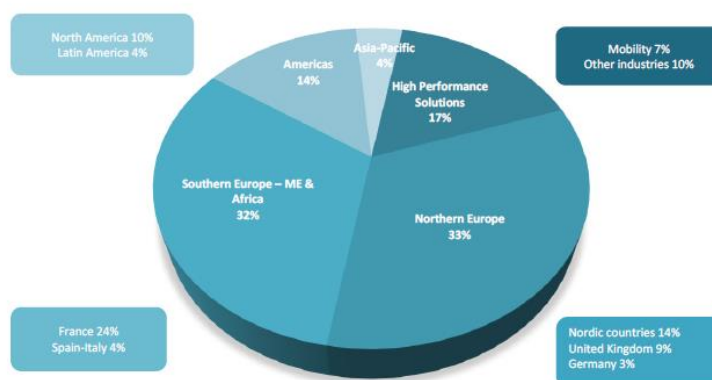


Table 3. Breakdown of sales by geographic area and per market (Financial Results, 2020).

The two tables above show how strongly reliant Saint-Gobain currently is on the performance of the European markets, with well over half of its revenues and operating profits originating from there. Therefore, we think that the French equity index, the CAC40, is a good proxy for assessing Saint Gobain's equity performance.

## ANALYSIS OF FINANCIAL STATEMENTS

After obtaining the historical financial statements of the company, the bull, bear, base cases have been constructed in excel in order to use the ratios for our forecasts. The base case has been created using the historical financial statements from 2016 to 2020, forecasted to the next five years and expressed in percentages, millions of euros and days. Considering the previous cases, the base scenario has been calculated, designing the most likely scenario underpinning the forecast of the financial statements. The different scenarios ' details can be found in appendix A, B, and C: they will be discussed in the following paragraphs.

This next session lays out the components of the income statement in an orderly way from 2016 to 2025. These are the foundations from which to calculate the free cash flow.

FINANCIAL STATEMENTS	Historical Results					Forecast Period				
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Balance Sheet Check	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Current Price	<div>55.54</div>	Estimated Fair Value	<div>53.84</div>	% Upside	<div>-3.06%</div>	LIVE SCENARIO	<div>1</div>	1 = Base	2 = Bull	3 = Bear
Income Statement										
Revenue	39,093	40,810	41,774	42,573	38,128	40,962	43,372	44,915	46,459	48,079
Cost of Goods Sold (COGS)	26,640	27,886	28,568	28,313	25,063	26,920	28,510	29,524	30,539	31,604
Gross Profit	12,453	12,924	13,206	14,260	13,065	14,033	14,862	15,391	15,920	16,475
Expenses										
Salaries and Benefits	8,046	8,273	8,458	8,527	7,892	8,477	8,977	9,297	9,616	9,952
R&D	440	450	454	466	429	453	480	497	514	532
Share in Profit of Equity Accounted Investr	(31)	(33)	(30)	(24)	(13)	(26)	(28)	(29)	(30)	(31)
EBITDA	3,998	4,234	4,324	5,291	4,757	5,129	5,432	5,626	5,819	6,022
Depreciation & Amortization	1,180	1,206	1,202	1,901	1,902	1,882	1,801	1,734	1,679	1,633
EBIT	2,818	3,028	3,122	3,390	2,855	3,247	3,631	3,891	4,140	4,389
Interest	541	448	(189)	468	419	255	218	181	143	106
Earnings Before Tax	2,277	2,580	3,311	2,922	2,436	2,992	3,413	3,710	3,997	4,283
Other Income	61	121	435	196	88	179	190	196	203	210
Other Expenses	(575)	(638)	(2,759)	(1,033)	(1,511)	(1,313)	(1,390)	(1,440)	(1,489)	(1,541)
Share in Profit of Non-CoreEquity Accounte	5	-	-	-	2	1	2	2	2	2
EBT	1,768	2,063	987	2,085	1,015	1,860	2,214	2,468	2,712	2,954
Taxes	416	438	490	631	526	595	708	790	868	945
Net Earnings	1,352	1,625	497	1,454	489	1,264	1,505	1,679	1,844	2,008
	3.46%	3.98%	1.19%	3.42%	1.28%	3.09%	3.47%	3.74%	3.97%	4.18%

Table 4. Extract of the income statement

As said above, revenues are expected to increase in line with nominal GDP growth. More specifically, after an initial surge as the world (and Europe in particular) recovers from the COVID19 crisis, real GDP growth should normalise downwards, reaching 1.36% towards the end of the cycle. On the other hand, inflation is seen recovering very gradually, remaining below the central bank's target in 2025 at 1.6%.

Another exciting research is the sector performance graph as shown in Table 5, where the industry of construction materials was relatively stable from 2016 to 2019, rising by 25% to

then drop rapidly by circa -50% (to -25% with respect to the chart's starting value) during the pandemic crisis, and then again quickly recover in 2021 reaching a peak of 75%.

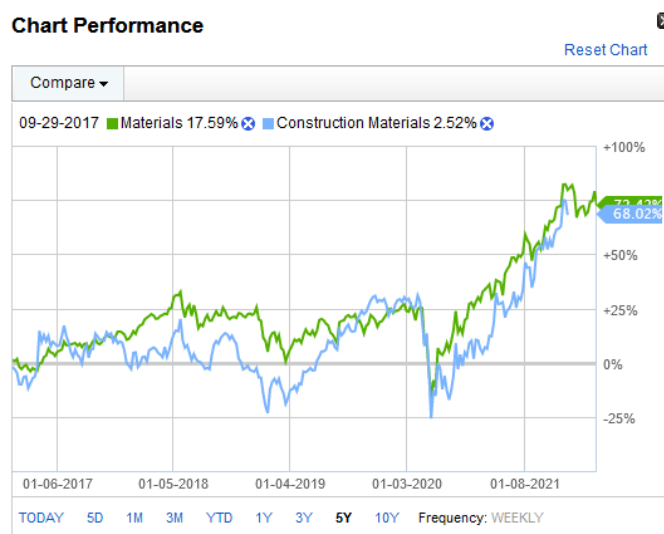


Table 5. (Sectors & Industries Overview - U.S. Sectors- Fidelity, 2021)

The financials of Saint Gobain show a more graphical and numerical point of view over the five previous years regarding sales and COGS, shown in Table 5, highlighting the drop in 2020 (Table 6).

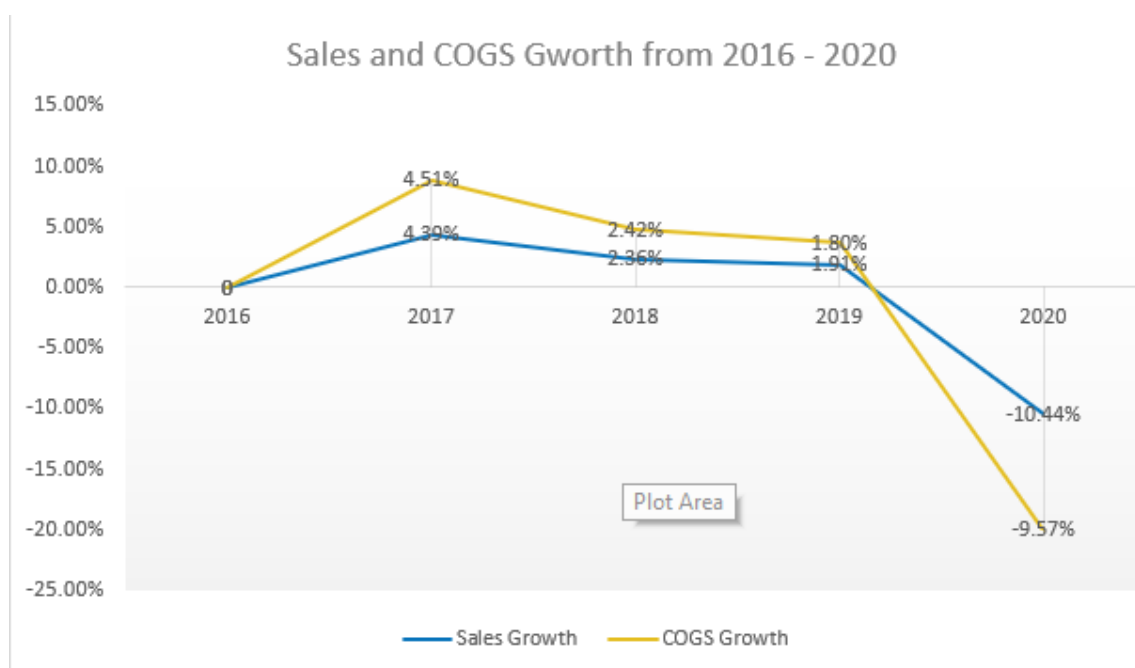


Table 6. Sales and COGS growth rates from 2016 to 2020

## DEPRECIATION AND AMORTISATION D&A

Asset D&A has been forecasted separately in Appendix D (therefore, chaining the book value of assets by adding the value of Capex and subtracting that of depreciation each year). It is assumed that Saint Gobain will sustain a significant acceleration in sales growth through higher capital expenditures. On the other hand, the depreciation rate is seen normalised back down from the significant rise in 2019 and 2020. That said, the 2025 depreciation rate is still seen remaining at a still high value of 12.9%. All in all, with these assumptions, the book value of assets does not decline, which would be an unlikely outcome under the current sales growth expectations (Hillier et al., 2016).

## EBIT

Ebit is the gross profit when subtracting operating expenses (admin expenses, salary, general expenses and selling expenses). The EBIT margin is simply the ratio between revenues and EBIT and gives an idea of the conversion of sales into operating profits. In this model's numbers, EBIT is seen rising mainly in line with revenues, with margins relatively stable and in line with history.

$$EBIT = \text{Gross Profit} - \text{Other operating Expenses}$$

Table 7. EBIT formula

## EBITDA

EBITDA is a result of the sum of net income, taxes, interest expense and D&A. The data is gathered from the income statement of Saint-Gobain's official website. EBITDA calculates how much debt in cash the firm has to pay in its long-term assets. The figure already considers D&A, tax and interest, which varies from business to business concerning management's financing choices.



## *IRR – INTERNAL RATE OF RETURN*

An investor seeks profitability when considering a potential investment. IRR is the annual growth rate that the investment is expected to achieve: a discount rate that takes all the net present values of the cash flows to zero. When the IRR is high, the investment is more appealing to investors. Usually, IRR is compared to the required rate of return, and in theory, when IRR is higher than the RRR, the investment would be profitable. This rate is not used alone but in contemporaneous with WACC and RRR.

## *INTEREST EXPENDITURE*

The section of interest expenditure assumptions needs a different treatment given the very uncertain nature of this forecast, especially when extracting the final cash flow for the terminal value calculation. Currently, the cost of legacy debt is significantly higher than the current market yields for Saint Gobain bonds. Legacy debt is remunerated at 3.48% while, according to Bloomberg, it could issue a EUR-denominated bond of ten-year maturity at 0.2%.

As debt comes to maturity, therefore, it is reasonable to assume a gradual decline in the rate of interest paid. That said, the assumption of a relatively higher CAPEX means that the stock of debt could rise. Even though the company could finance the vast majority of assumed CAPEX, the resulting rise in cash balances is compatible with M&A operations in the future. Despite this, the interest expenditure is still seen dropping through the forecast period.

## **DYNAMIC SCENARIOS**

Scenarios are used to help the valuation process by predicting possible outcomes and estimates changes that will be reflected in the firm's intrinsic value under assessment. In this paper, the base or live scenario is the most likely set of assumptions underpinning future projections. The analysis does not rely on historical data but instead opens the possibility of deviations concerning the central scenario combining pessimistic optimistic possibilities. This topic is very sensitive as it complicates the valuation process, but if applied correctly, it could give great

insights and drive critical decisions to the firm and the investor when deciding whether to include certain stocks in their portfolio.

Using the base scenario, the assumptions that have been considered are GDP Growth, price inflation and the discount rate (Premium/Discount), which has been calculated using the growth rate calculated after inflation subtracting the revenue growth %. GDP growth has been gathered from the Statista website (France: gross domestic product (GDP) growth rate 2026 | Statista, 2021) from 2016 to 2025. The same source has taken the inflation data (France: Inflation rate 1984-2024 | Statista, 2021). Using European Commission's or ECB's forecasts may have been a more valid alternative; however, their forecasts stop at 2022-2023.

A brief explanation of the technical implementation of the scenarios follows. The way the revenue has been calculated in the base scenario considers the income statement from 2016 to 2020 in Appendix G and Table 4, and it is calculated using the previous year's revenue divided by the following year revenue minus one. For what concerns the COGS, the calculation consists of the fraction between COGS and Revenue of the same year and remains stable during the following years. Depreciation is calculated using the depreciation on the income statement divided by the property and equipment row from the Balance Sheet in Appendix E. The tax rate is obtained by dividing the tax paid by earnings before tax. The tax rate from 2021 to 2025 is gathered from the Consolidated Financial Statements of Saint Gobain under Tax notes, which resulted in 32.02% (Financial results, 2021).

The assumptions around the bull and bear scenarios are distributed amongst the various components of the income statement in a way to ideally lead to 20% enterprise value deviations from the base.

## VALUATION METHODS

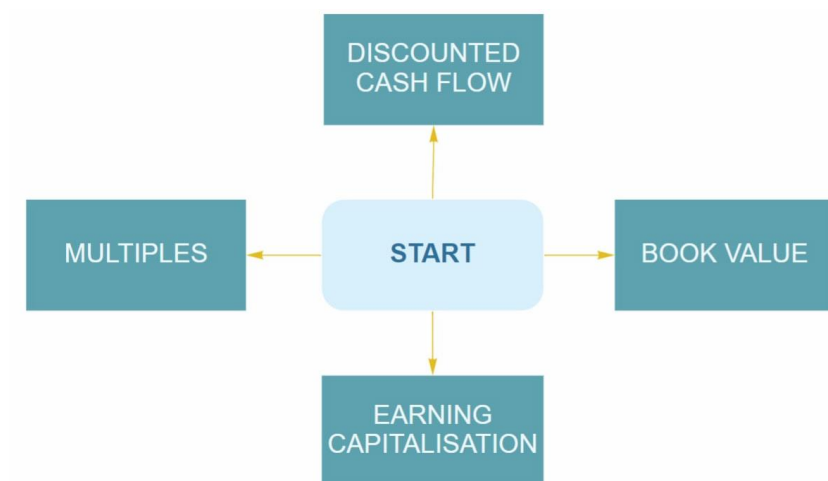


Table 8. Types of Valuation methods

### *BOOK VALUE METHOD*

The book value method is simply derived by extrapolating Assets and Liabilities (net of capital) from the Balance Sheet – the equity value is simply derived as their difference. It is a straightforward method also because data is readily available from financial reports. The method is based on the historical balance sheet data, so not necessarily on their market value. This method is very limited as it does not consider future developments on the company, such as those impacting earnings, and does not also consider that depreciation methods are not harmonised from firm to firm: an adjusted book value can be calculated, but the method itself is not the industry best.

### *EARNINGS CAPITALISATION METHOD*

The main inputs of this method are earnings and the capitalisation rate. Earnings are usually calculated by averaging the past three years' earnings also considering the forecasted years; therefore, the expected earnings are linked to historical results. In order to capitalise on earnings, it is required to divide them by the internal rate of return (IRR). This rate depends on

the risk of the business and the interest on long term debt. In the case of constant growth in perpetuity, the following formula can be derived:

$$\frac{\text{Earnings}}{(\text{Capitalisation Rate} - \text{Growth Rate})}$$

Table 9. Earnings Capitalisation formula

The problem associated with the above formula is that it assumes a constant growth rate in perpetuity, while the other variables (capitalisation rate and earnings) have a certain degree of subjectivity. Lastly, the method does not consider the financing structure or whether the firm has assets in excess because it looks at historical data.

## MULTIPLES

The Multiples method uses a number of market and financial statement metrics to calculate the value of a firm. Most frequently, the model needs income statements as it focuses on revenues and COGS. Multiples ratios are relative to performance, and to make the values estimated comparable to other firms' multiples, it is required to base our ratios on EBITDA (Kaplan, Ruback, 1996). In this type of valuation, multiple methods are combined with the DCF, instead of a standalone, to reveal differences between the two methods and sanity check them against one another. The types of analysis where multiples are adopted are mainly two, one company analysis and many company analysis. The first one helps management to analyse how performance hits the yearly financial value. By identifying the drivers that affect the value, the management would establish where to invest the firm's resources. When analysing multiple companies, the management understands first the relationships between the various industries metrics and can identify the field of improvement.

The easiest way to present an overview of the company against its peers is by using multiples. It is essential to identify the weaknesses of comparing multiples with those of other firms to limit the risk of conflicting and misleading conclusions. In fact, this method is easily controllable and, therefore, could be conveniently manipulated as the analyst could select the best multiples instead of showing the firm's fair value (Damodaran, 2002). More specifically, in this valuation, one of the multiples calculated is the P/E (price to earnings ratio) which measures the share price at the time of the valuation in association to its EPS (earnings per

share): it is vastly used when comparing firms of the same industry and can be used against the historical performance of the same firm:

$$\text{P/E Ratio} = \frac{\text{Market Value Per Share}}{\text{EPS}}$$

Table 10. P/E ratio formula

This multiple easily shows when a stock is over or undervalued (with respect to its earnings) compared to peers. As such, as said above, it is a widespread comparator. That said, different accounting systems affect the P/E ratio and as well as the P/B ratio (book value ratio - which is calculated using the equity value of the firm and the shareholders' equity on the Balance Sheet in Appendix E). On the other hand, what is not affected by the accounting system are the multiples of revenue which, in Appendix J, are labelled as E.V./Sales: the easiest way to compare firms operating in different markets. As per the earnings multiples, EV/EBIT, EV/EBITDA both have narrow variability rates and therefore are the best in category; the enterprise value is divided by the earnings before interest and tax, and the enterprise value is divided by the earnings before interest, tax, depreciation, and amortisation (BODIE., 2020).

	MEAN	AVG IND	SGO vs Mean		SGO vs AVG IND	
EV/Sales	2.7x	3.0x	-2.0x	-72.6%	-2.2x	-74.9%
EV/EBITDA	11.3x	11.4x	-5.4x	-47.5%	-5.5x	-47.9%
EV/EBIT	15.6x	15.9x	-5.7x	-36.6%	-6.0x	-37.8%
P/E	20.2x	20.2x	-0.9x	-4.2%	-0.8x	-4.0%
P/S						
P/B	2.4x	3.6x	-0.8x	-32.3%	-1.9x	-54.2%

Table 11. Multiple Mean and Industry Average vs Saint Gobain with percentages.

Building Material Peers												
	Holcim	CRH	Heidelberg	Eagle Mat	Sika	Vicat	Martin Mar	Cementos	Cemex	Vulcan	UltraTech	Dangote
EV/Sales	1.7x	1.8x	1.2x	3.8x	5.2x	1.1x	5.0x	1.5x	1.3x	5.0x	4.2x	3.6x
EV/EBITDA	6.8x	10.7x	5.9x	10.6x	25.6x	5.6x	16.5x	7.5x	6.4x	17.4x	16.4x	7.3x
EV/EBIT	10.0x	15.6x	8.9x	14.7x	31.5x	10.1x	22.5x	13.8x	10.2x	24.0x	20.9x	8.7x
P/E	11.8x	19.9x	8.8x	16.2x	42.4x	9.0x	28.7x	20.3x	10.8x	32.4x	29.2x	12.3x
P/S												
P/B	1.2x	2.1x	1.1x	4.6x	12.7x	0.9x	3.8x	0.9x	1.2x	3.9x	4.8x	5.4x

Table 12. 2020 Multiples of Peers overview

The P/E multiple of Saint Gobain for 2020 has resulted in 19.3x (Appendix J), compared to the mean of 20.2x of its peers. The company is undervalued by 4.0% compared to the industry

average and undervalued by 4.2% compared to the mean. The EV/Sales of Saint Gobain was undervalued at 72.6% and 74.9% against the mean and industry average, respectively.

Similarly, the peer's average P/E ratio (Table 11) leads to the same conclusion: our intrinsic value calculation is compatible with a lower P/E ratio for Saint Gobain.

Mindful of the already aggressive assumptions on sales growth through the forecast period and considered that also other multiples are below those of peers, it is likely that the model considers a conservative WACC. Part of it comes from a significantly higher cost of debt relative to current quotes in the secondary market, and part likely comes from a high (relative to current implicit premia in secondary markets) Equity Risk Premium of 7.75%. The WACC calculation in this paper stands on the high end of the published WACC and ERP assumptions of the likes of PWC. Other factors that contribute to depressing our enterprise value are a significant permanence of expenses outside the scope of FCF and, in the context of the sales adjustment post-Covid, a sizeable rise in working capital in 2021 (and stabilisation afterwards).

The percentages previously stated show the various multiple ratios of Saint Gobain being undervalued compared to its peers.

### *PERPETUITY GROWTH RATE*

The perpetuity growth rate is constant, and it is the rate that the terminal value of the FCF forecasted will be growing eternally.

In economy, the assumption is that the cash flows of a firm will not grow at a higher rate than the economic perpetuity growth rate (otherwise, theoretically, the company would dominate the size of the world economy).

The benchmark of the perpetuity growth rate taken for this research is the French GDP Growth Rate, around 1% (Bloomberg Finance L.P. 2021) and the price inflation rate assumed at the central bank target of 2%.

## VALUATION METHOD –DISCOUNTED CASH FLOW METHOD (DCF) RESULTS

The method that considers future cash flows, risk, returns, and capital cost of capital is the DCF method (Damodaran, 2002). The formula below shows the value of the free cash flow perpetuity at constant growth.

$$\text{Enterprise Value} = \frac{FCF_n}{(1 - r)^n} + \frac{TV}{(1 - r)^n}$$

Table 13. Enterprise Value formula (Intrinsic Value)

Where

*E.V.* is the enterprise value

*FCF* is the free cash flow

*n* is the number of years

*r* is the discount rate calculated with the WACC method.

*T.V.* is the Terminal Value

$$FCF_{n+1} = \text{Unlevered Net Income}_{T+1} + \text{Depreciation}_{T+1} - \text{Increase in NWC}_{T+1} \\ - \text{Capital Expenditures}_{T+1}$$

Table 14. Free Cash Flow formula (Berk and DeMarzo, 2017)

The FCF estimates consider unlevered FCF, depreciation (D&A), increase in net working capital and capital expenditures (Capex), as shown in Table 14. Capex is another interesting item that considers depreciation, the growth rate of sales and fixed assets. A company needs new capital to neutralise depreciation, and as the volume of production grows, it also needs more capacity. Growth would be considered in the fixed asset see Table 15.

$$\text{Capital expenditures}_{T+1} = \text{Depreciation}_{T+1} + g * \text{Fixed Assets}_{T+1}$$

Table 15. Capex formula

The DCF unfolds in five stages: first, the financial historic and strategic phase, second, the projections of FCF, third, the required return calculation stage, fourth, the NPV of projected C.F. and lastly, the DCF method can be completed and interpreted.

Discounted Cash Flow								Terminal Value	
Entry	2021	2022	2023	2024	2025	Exit			
Date	30/06/2021	31/12/2021	31/12/2022	31/12/2023	31/12/2024	31/12/2025	31/12/2025	Perpetual Growth	36,559
Year Frac	0.50	1.00	1.00	1.00	1.00	1.00	1	EV/EBITDA	39,886
EBT	2,312	2,527	2,659	2,790	3,046			Average	38,223
Interest	255	218	181	143	106				
EBIT	2,568	2,745	2,839	2,934	3,152				
Less: Cash Taxes	822	878	909	939	1,009				
Plus: D&A	1,429	1,488	1,544	1,600	1,541				
EBITDA	3,997	4,233	4,384	4,534	4,693				
Less: Capex	1,407	1,407	1,407	1,407	1,407				
Less: Changes in NWC	1,331	161	103	103	108				
Unlevered FCF	437	1,787	1,965	2,086	2,169				
(Entry)/Exit									38,223
Net FCF	-	220	1,787	1,965	2,091	2,169			38,223
Transaction FCF	(36,265)	220	1,787	1,965	2,091	2,169			38,223
<b>Present Value</b>									
(36,052)	2684%	(36,265)	220	-	-	-	-		
1,614	-120%	-	-	1,787	-	-	-		
1,659	-124%	-	-	-	1,965	-	-		
1,650	-123%	-	-	-	-	2,091	-		
1,599	-119%	-	-	-	-	-	2,169		
28,186	-2099%	-	-	-	-	-	-		38,223
(1,343)	100%	(36,265)	220	1,787	1,965	2,091	40,392		
<b>Intrinsic Value</b>			<b>Market Value</b>			<b>Rate of Return</b>			
Enterprise Value	34,922		Market Cap	29,585		Current Price	55.54		
Plus: Cash	8,443		Plus: Debt	15,123		Target Price	53.02		
Less: Debt	15,123		Less: Cash	8,443		Target Price Upside	-5%		
Equity Value	28,242		EV	36,265		IRR	6%		
Equity Value/Share	53.02		Equity Value/Share	55.54					

Table 16. Extract of DCF model, Adjusted NPV

These cash flows are now ready to be discounted, resulting in the present value, which can also be discussed as the amount of money an investor is willing to pay for the firm (Table 17).

Intrinsic Value		Market Value		Rate of Return	
Enterprise Value	34,922	Market Cap	29,585	Current Price	55.54
Plus: Cash	8,443	Plus: Debt	15,123	Target Price	53.02
Less: Debt	15,123	Less: Cash	8,443	Target Price Upside	-5%
Equity Value	28,242	EV	36,265	IRR	6%
Equity Value/Share	53.02	Equity Value/Share	55.54		

Table 17. Extract of DCF model, calculation of Intrinsic Value, Market Value and IRR.

The firm's intrinsic value should be calculated by adding cash and subtracting the debt to the Enterprise value, which is derived from the calculation of the NPV of the FCF from 2021 to 2025. The value of debt that is subtracted is obtained from the Balance Sheet in Appendix E. The cash is also gathered from the Balance sheet under the label "cash and cash equivalents" in 2020. The result is the company's equity value, which can also be expressed per share by dividing it by the number of outstanding shares of the company (which amounted to 532'683'713 on the 31st of December 2020): the Equity Value/Share is therefore calculated at €53.02.

The enterprise value is calculated separately using the market capitalisation plus debt and by deducting cash (Table 17). The market capitalisation was obtained by multiplying the outstanding shares by the stock's current price on the 30th of June 2021. CAPM method has



been adopted to calculate the cost of equity, as the firm is public and has prices quoted in the stock market. The cost of capital is the weighted average cost of debt and equity (Table 18).

$$WACC = \frac{MV \text{ of equity}}{MV \text{ of equity} + MV \text{ of debt}} * \text{Equity cost of capital} \\ + \frac{MV \text{ of debt}}{MV \text{ of equity} + MV \text{ of debt}} \\ * \text{debt cost of capital} (1 - \text{corporate tax rate})$$

Table 18. WACC formula where *MV* is the market value

## COST OF EQUITY

Equity is defined as the value of the assets that an owner possesses and, in the Balance Sheet, is obtained by deducting the total liabilities from the total assets. The cost of equity can also be identified as the rate of return that an investor requires to make an equity investment, which is inherently risky (Damodaran, 2002). The cost of equity was obtained by multiplying the calculated Beta with the market premium and adding it to the risk-free rate. This, of course, compensates the investor for that share of company risk that cannot be diversified away.

Cost of Equity	
CAPM	
Risk-free rate	-0.22%
Beta	1.17
Market Premium	7.75%
Ke	8.87%

Table 19. Cost of Equity extract from WACC calculation

The risk-free rate is the return the investor expects to get on a risk-free asset, and it would be derived from medium to long-term government bonds. The risk-free rate of reference for EUR denominated assets is the yield of the 10-year bond issued by the Federal Government of Germany (Bloomberg, as of the end of June 2021).

The market Premium is the return expected on the stock market deducting the risk-free rate. According to PWC, French companies have a market risk premium that lies between 7.25% and 8.25%; therefore, in Table 19, the market premium has been decided to be the average of the two, i.e. 7.75%.

The levered Beta has been calculated using an OLS regression. Taking market prices from the CAC40 Index and Saint-Gobain's daily stock prices, calculating the return on both and then running the regression to define Beta. The data range is from July 2016 to July 2021 obtained for both CAC40 Index and Saint Gobain stock prices from Bloomberg, Appendix M.

The Beta is calculated through the following formula:

$$\text{levered } \beta = \frac{\text{Covariance of Assets with the Market index}}{\text{Variance of the Market Portfolio}}$$

Table 20. Beta formula (Berk and DeMarzo, 2017).

The result of levered Beta in this research is 1.1730, which is  $> 1$ , meaning that the firm's systematic risk is higher than that of the market. The market has a beta of one; therefore, all the firms that result with a beta of one will have the same return as the market. When Beta is less than 1, a firm's systematic risk is lower than the market.

$$\text{Required Return} = R_f + \beta (R_m - R_f)$$

Table 21. CAPM formula

Where

$R_f$  is the Risk-Free Rate.

$\beta$  beta.

$R_m$  is the market expected return.

## COST OF DEBT

Cost of Debt	
Interest	419
Debt	12,025
Kd	3.48%
Tax Rate	32.00%
Kd (After tax)	2.37%

Table 22. Cost of Debt extract from WACC calculation

Cost of debt is the other component of the discount rate calculation which is the current market rate on which the company is paying its debt after tax. The calculation that is shown in Table 22 consists in dividing the interest by the debt. Debt is obtained from the balance sheet adding Current portion of long-term debt and debt under current liabilities: 1,846 + 10,179 = 12,025 (expressed in € millions). Following the Modigliani-Miller proposition, the importance of tax in the equation is useful when calculating WACC, the debt benefits from an increase of tax rate; therefore, leverage affects the firm's value (Berk and DeMarzo, 2017). In this sense, when the company can generate extra returns, higher leverage brings enterprise value benefits. Of course, this holds until the marginal loss from the increase in financial risk surpasses the marginal benefit stemming from enterprise value changes.

Interest is obtained from the income statement in 2020, which is exceptionally high at 3.48%, especially after considering that EUR-denominated risk-free rate is -22bp and Saint Gobain's credit risk spread at around 40bp.

The data of the corporate tax rate has been collected from the live scenario (Appendix A). As said above, interest can be deducted, and the effect on the interest of debt is a positive effect, also called tax shield which should be considered in the cost of debt calculation. The cost of debt after tax is calculated as follows:

$$Kd (after Tax) = (Kd + Spread) * (1 - Tax Rate)$$

Table 23. Cost of Debt formula (WACC)

## WACC

WACC	
Ke	8.87%
Ve	29,585
Kd	2.37%
Vd	12,025
<b>WACC</b>	<b>6.99%</b>

Table 24. WACC calculation

Where

$K_e$  is the cost of equity

$V_e$  is the market capitalisation

$K_d$  is the cost of debt

$V_d$  is the debt calculated from the balance sheet\*

WACC resulted in being 6.99% and is translated as the discount rate in the assumptions in Table 24. As previously stated, the WACC value could be high compared to pwc's WACC estimated for the materials sector, which ranges between 5.7% to 6.9% (PricewaterhouseCoopers, 2021). The discount rate is then used to calculate the intrinsic value (enterprise value) and the Terminal Value.

Assumptions	
Tax Rate	32.0%
Discount Rate	6.99%
Perpetual Growth Rate	1%
EV/EBITDA Multiple	8.5x
Transaction Date	30/06/2021
Current Price	55.54 June 30 2021
Shares Outstanding	533

Table 25. DCF Assumptions extract

## ENTERPRISE VALUE

Enterprise Value is based on the levered Free Cash Flows of the firm on the specific dates considered. The formula is represented as the following:

$$EV = \text{Market Cap} + \text{Short and Long term Debt} - \text{Cash and cash equivalents}$$

Table 26. Enterprise value formula

In the case of acquisitions, E.V. would represent the takeover price of the firm. This differs from market capitalisation because it takes into account debt and cash reserves.

## TERMINAL VALUE

Estimation of the terminal value is not precise as it entirely relies on forecasts and assumptions on the perpetual growth rate, the discount rate (WACC), and the exit net cash flow after five years.

$$TV = \frac{* FCF_N (1 + g_{FCF})}{(r_{wacc} - g_{FCF})}$$

Table 27. Terminal value formula (Berk and DeMarzo, 2017).

Terminal value is the reflection of the capability of the firm to grow more than the forecast period.

Terminal Value	
Perpetual Growth	36,559
EV/EBITDA	39,886
Average	38,223

Table 28. Terminal Value Excel extract

$$\text{Perpetual Growth} = \frac{\text{Changes in NWC} * (1 + \text{Perpetual Growth Rate})}{(r_{wacc} - \text{Perpetual Growth Rate})}$$

Table 29: Formula of perpetual growth used in the valuation.

The assumption of this formula is the constant growth which has been intentionally chosen to be 1%. The reason behind the choice is that after 2020 sales went down by 10.4% from 2019 and then increasing in the following years but not in considerable amounts; therefore, the decision was to take a low perpetuity growth rate to include risks such as the pandemic; therefore it includes a high level of uncertainty (Table 29).

$$TV \text{ with Exit Multiple: } EV/EBITDA = EBITDA_{2025} * EV/EBITDA \text{ Multiple}$$

Table 30. EV/EBITDA formula used in the valuation.

The multiple EV/EBITDA is gathered from the market multiples website and is 8.5x (European Industry Market Multiples | Valuation Insights Third Quarter 2020 | Duff & Phelps, 2021).

EV/EBITDA (Table 30) is called a trading multiple, and it is the multiple category on which comparable firms can be analysed. In this paper, the choice of terminal value calculation was made by taking the average of the two methods.

## SENSITIVITY ANALYSIS

This tool is used in financial modelling to check how independent variables (or assumptions) affect dependent variables under precise conditions. The reasons why sensitivity analysis is performed are mainly three: valuation analysis, business planning, and model testing. It is a flexible method and helps with decision-making processes. The share price sensitivity has been obtained in Table 31.

Share Price Sensitivity		Revenue Growth				
Exit Multiple		-3.6%	2.4%	7.4%	12.4%	17.4%
	6.5x	38.84	43.03	46.52	50.01	53.49
	7.5x	41.76	46.12	49.76	53.40	57.05
	8.5x	44.67	49.22	53.01	56.80	60.60
	9.5x	47.59	52.32	56.26	60.20	64.15
	10.5x	50.50	55.41	59.51	63.60	67.70

		Revenue Growth				
		-3.6%	2.4%	7.4%	12.4%	17.4%
WACC	8.99%	35.42	39.17	42.30	45.42	48.55
	7.99%	39.52	43.62	47.04	50.46	53.88
	6.99%	44.68	49.23	53.03	56.82	60.61
	5.99%	51.51	56.67	60.96	65.25	69.55
	4.99%	61.22	67.24	72.26	77.28	82.29

Table 31. Share Price Sensitivity Excel extract.

Above there has been used the direct method which sensitises the equity share price based on changes on revenue growth and the EV/EBITDA multiple using the data that has already been gathered.

The indirect method is shown in Table 32 and allows to edit formulas in the model. The drivers of each formula were needed to be sensitised. The method's assumptions were revenue growth +/- 5%, COGS +/-5%, Discount Rate (WACC) +/-1% as it is less volatile than revenues and growth rates and EV/EBITDA Exit +/-1%.

Revenue Growth +/-5%		COGS +/-5%		Discount Rate +/-1%		EV/EBITDA Exit +/-1x	
Change	\$/Share	Change	\$/Share	Change	\$/Share	Change	\$/Share
0.0%	53.02	0.0%	53.02	0.0%	53.02	0.0x	53.02
-5.0%	38.67	-5.0%	81.63	-1.0%	60.95	-1.0x	49.77
+5.0%	69.80	+5.0%	24.41	+1.0%	47.04	1.0x	56.27

Table 32. Assumptions on sensitivity analysis

These calculations help investors understand how sensitive the stock price is to potential future changes in the primary value drivers (Table 32-33). As a result, this is a widespread tool for sanity checking calculations, assessing probable price ranges and their risks.

Assumption	-5% Δ	Abs Change	Rank	Output Driver	Pos	Neg
Revenue Growth +/-5%	-27%	27%	1	6% EV/EBITDA Exit +/-1x	6%	-6%
COGS +/-5%	54%	54%	2	15% Discount Rate +/-1%	15%	-15%
Discount Rate +/-1%	15%	15%	3	27% Revenue Growth +/-5%	27%	-27%
EV/EBITDA Exit +/-1x	-6%	6%	4	54% COGS +/-5%	54%	-54%

Table 33. Gravity Sort Table

The gravity sort table (Table 33) is another method used for sensitivity analysis. It took each assumption (Revenue growth, COGS, Discount Rate, EV/EBITDA), the change, the absolute change, ranking from smallest to largest. On the Driver column, the index and match function have been used to output the driver's name that was sorted automatically. This way, it is possible to change assumptions and inputs in the model, and the gravity sort table would not be outdated

anymore and what is needed for the tornado chart (stacked bar chart) is the positive and negative column of changes in order to populate the chart.

The stacked bar chart has been completed, and it looks like the following:

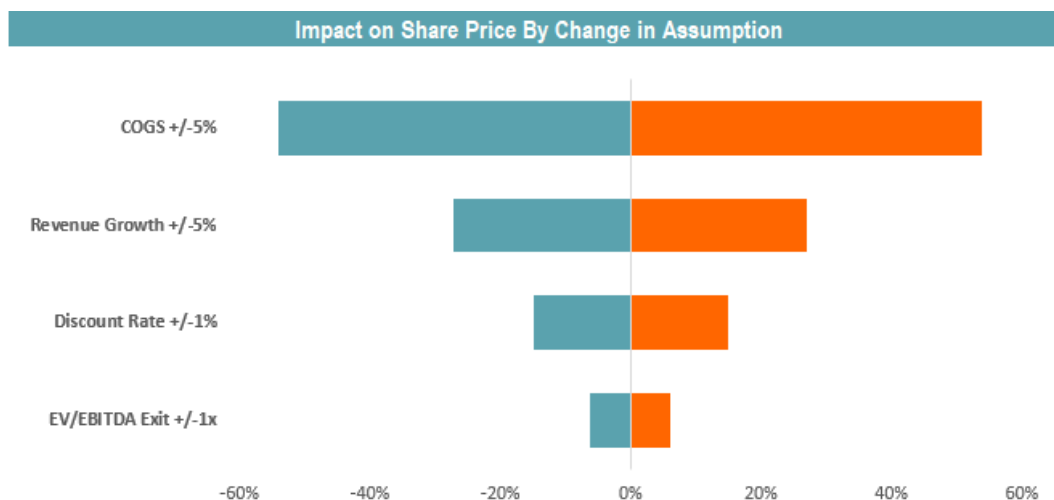


Table 34. Tornado Chart

The chart shows the rankings on the assumptions where the share price changes get the most affected to the least; more simply check how the price moves based on the chosen drivers.



## CONCLUSION

The goal of this paper was to perform a valuation of Saint Gobain S.A. using the DCF model and Multiples. The valuation showed the intrinsic value per share, the market value per share, and the firm's terminal value.

The intrinsic enterprise value of Saint Gobain rose to €m 34,922, the Equity Value after deducting debt and adding cash resulted being €m 28,242 and implied equity value per share € 53.02 as of the 30th of June 2021.

The firm's market value resulted in market capitalisation of €m 29,585, which deducted cash and added debt produced €m 36,265 in enterprise value on the 30th of June 2021.

Comparing the intrinsic value and the market value per share, the first one is lower than the market value by 4.76%; therefore, the company's share price is undervalued.

The discount rate using the CAPM method resulted in 6.99%. The Perpetuity rate is assumed to be 1%.

Additional calculations to assist the DCF model were made using the relative valuation or so-called multiples such as P/E, P/S, P/B, EV/EBIT, EV/EBITDA and E.V./Sales reporting that Saint Gobain is undervalued against its peers supporting the DCF model's findings.

The scenario analysis presented a bull, bear and base case. The base case scenario was used to perform the forecast of the financial statements to 2025. Additional analysis could have been performed using the bear and bull scenario against the base scenario and analysing how the enterprise value and the equity value would change in the different outlines.

Assumptions on the forecasts are tested using scenario analysis and sensitivity analysis, demonstrating how the price moves when the financial drivers WACC, Revenue Growth %, Exit Multiple, and COGS change.

Acknowledging the findings above stated, using both the DCF model and multiple methods, the paper concludes the investment recommendation not to buy.

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## APPENDIX

## A. Base Scenario from 2021 to 2025

FINANCIAL STATEMENTS	Historical Results					Forecast Period				
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Balance Sheet Check	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Current Price	55.54	Estimated Fair Value	53.02	% Upside	-4.54%	LIVE SCENARIO	1	1 = Base	2 = Bull	3 = Bear
GDP Growth	1.10%	2.29%	1.87%	1.49%	-8.23%	5.81%	4.22%	1.71%	1.48%	1.36%
Inflation	0.31%	1.17%	2.10%	1.30%	0.53%	1.08%	1.17%	1.33%	1.44%	1.61%
Growth	1.41%	3.46%	3.97%	2.79%	-7.70%	6.89%	5.39%	3.04%	2.92%	2.97%
Premium/(Discount)		-0.93%	1.61%	0.88%	2.74%	0.52%	0.52%	0.52%	0.52%	0.52%
<b>Base</b>										
Revenue Growth (% Change)		4.4%	2.4%	1.9%	-10.4%	7.4%	5.9%	3.6%	3.4%	3.5%
Cost of Goods Sold (% of Revenue)	68.1%	68.3%	68.4%	66.5%	65.7%	65.7%	65.7%	65.7%	65.7%	65.7%
Salaries and Benefits (% of Revenue)	20.6%	20.3%	20.2%	20.0%	20.7%	20.7%	20.7%	20.7%	20.7%	20.7%
R&D	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%
Share in Profit of Equity Accounted Investm	-0.1%	-0.1%	-0.1%	-0.1%	0.0%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Depreciation & Amortization (% of PP&E)	10.1%	10.4%	10.6%	16.2%	17.2%	12.9%	13.5%	14.1%	14.8%	14.5%
Interest (% of Debt)	6.2%	5.1%	-1.8%	3.1%	2.8%	3.1%	3.1%	3.1%	3.1%	3.1%
Other Income	0.2%	0.3%	1.0%	0.5%	0.2%	0.4%	0.4%	0.4%	0.4%	0.4%
Other Expenses	-1.5%	-1.6%	-6.6%	-2.4%	-4.0%	-3.2%	-3.2%	-3.2%	-3.2%	-3.2%
Share in Profit of Non-CoreEquity Accounte	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Tax Rate (% of Earnings Before Tax)	23.5%	21.2%	49.6%	30.3%	51.8%	32.0%	32.0%	32.0%	32.0%	32.0%
Accounts Receivable (Days)	46	46	43	41	44	44.13	44.13	44.13	44.13	44.13
Inventory (Days)	80	79	80	80	78	79.49	79.49	79.49	79.49	79.49
Current Tax Receivable (Days)	4	2	2	2	1	2.31	2.31	2.31	2.31	2.31
Other Receivables (Days)	14	12	14	14	12	13.32	13.32	13.32	13.32	13.32
Accounts Payable (Days)	80	79	78	77	86	79.96	79.96	79.96	79.96	79.96
Current Tax Liabilities (Days)	2	2	1	2	3	1.99	1.99	1.99	1.99	1.99
Other Payables (Days)	50	50	49	52	57	51.55	51.55	51.55	51.55	51.55
Capital Expenditures (\$000's)		1,142	947	2,273	1,267	1,407.25	1,407.25	1,407.25	1,407.25	1,407.25
Debt Issuance (Repayment) (\$000's)					-	1,846.00	1,215.75	1,215.75	1,215.75	1,215.75
Equity Issued (Repaid) (\$000's)										

## B. Bull Scenario from 2016 to 2025

FINANCIAL STATEMENTS	Historical Results					Forecast Period				
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Balance Sheet Check	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Current Price	55.54	Estimated Fair Value	53.02	% Upside	-4.54%	LIVE SCENARIO	1	1 = Base	2 = Bull	3 = Bear
<b>Bull</b>										
Revenue Growth (% Change)						10.4%	7.9%	4.6%	4.4%	4.5%
Cost of Goods Sold (% of Revenue)						63.7%	63.7%	63.7%	63.7%	63.7%
Salaries and Benefits (% of Revenue)						20.2%	20.2%	20.2%	20.2%	20.2%
R&D						1.1%	1.1%	1.1%	1.1%	1.1%
Share in Profit of Equity Accounted Investments						-0.6%	-0.6%	-0.6%	-0.6%	-0.6%
Depreciation & Amortization (% of PP&E)						11.9%	12.5%	13.1%	13.8%	13.5%
Interest (% of Debt)						2.1%	2.1%	2.1%	2.1%	2.1%
Other Income						0.9%	0.9%	0.9%	0.9%	0.9%
Other Expenses						-2.7%	-2.7%	-2.7%	-2.7%	-2.7%
Share in Profit of Non-CoreEquity Accounted Investments						0.5%	0.5%	0.5%	0.5%	0.5%
Tax Rate (% of Earnings Before Tax)						32.0%	32.0%	32.0%	32.0%	32.0%
Accounts Receivable (Days)						39.72	39.72	39.72	39.72	39.72
Inventory (Days)						71.54	71.54	71.54	71.54	71.54
Current Tax Receivable (Days)						2.08	2.08	2.08	2.08	2.08
Other Receivables (Days)						11.99	11.99	11.99	11.99	11.99
Accounts Payable (Days)						87.95	87.95	87.95	87.95	87.95
Current Tax Liabilities (Days)						2.19	2.19	2.19	2.19	2.19
Other Payables (Days)						56.70	56.70	56.70	56.70	56.70
Capital Expenditures (\$000's)						1,266.53	1,266.53	1,266.53	1,266.53	1,266.53
Debt Issuance (Repayment) (\$000's)						2,030.60	1,337.33	1,337.33	1,337.33	1,337.33
Equity Issued (Repaid) (\$000's)										

## C. Bear Scenario from 2021 to 2025

FINANCIAL STATEMENTS	Historical Results					Forecast Period				
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Balance Sheet Check	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Current Price	55.54	Estimated Fair Value	53.02	% Upside	-4.54%	LIVE SCENARIO	1	1 = Base	2 = Bull	3 = Bear
<b>Bear</b>										
Revenue Growth (% Change)						4.4%	3.9%	2.6%	2.4%	2.5%
Cost of Goods Sold (% of Revenue)						68.2%	68.2%	68.2%	68.2%	68.2%
Salaries and Benefits (% of Revenue)						21.7%	21.7%	21.7%	21.7%	21.7%
R&D						1.1%	1.1%	1.1%	1.1%	1.1%
Share in Profit of Equity Accounted Investments						0.0%	0.0%	0.0%	0.0%	0.0%
Depreciation & Amortization (% of PP&E)						14.9%	15.5%	16.1%	16.8%	16.5%
Interest (% of Debt)						4.1%	4.1%	4.1%	4.1%	4.1%
Other Income						0.3%	0.3%	0.3%	0.3%	0.3%
Other Expenses						-4.2%	-4.2%	-4.2%	-4.2%	-4.2%
Share in Profit of Non-Core Equity Accounted Investments						0.0%	0.0%	0.0%	0.0%	0.0%
Tax Rate (% of Earnings Before Tax)						32.0%	32.0%	32.0%	32.0%	32.0%
Accounts Receivable (Days)						48.55	50.00	50.00	50.00	50.00
Inventory (Days)						87.44	60.00	60.00	60.00	60.00
Current Tax Receivable (Days)						2.54	2.54	2.54	2.54	2.54
Other Receivables (Days)						14.66	14.66	14.66	14.66	14.66
Accounts Payable (Days)						71.96	71.96	71.96	71.96	71.96
Current Tax Liabilities (Days)						1.79	1.79	1.79	1.79	1.79
Other Payables (Days)						46.39	46.39	46.39	46.39	46.39
Capital Expenditures (\$000's)						1,547.98	1,800.00	1,800.00	1,800.00	1,800.00
Debt Issuance (Repayment) (\$000's)						1,661.40	1,094.18	1,094.18	1,094.18	1,094.18
Equity Issued (Repaid) (\$000's)						-	-	-	-	-

## D. Supporting Schedules (Working Capital Schedule, Depreciation, Debt and Interest Schedule).

FINANCIAL STATEMENTS	Historical Results					Forecast Period				
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Balance Sheet Check	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Current Price	55.54	Estimated Fair Value	53.02	% Upside	-4.54%	LIVE SCENARIO	1	1 = Base	2 = Bull	3 = Bear
<b>Supporting Schedules</b>										
<b>Working Capital Schedule</b>										
Accounts Receivable					4,597	4,952	5,244	5,431	5,618	5,814
Inventory					5,362	5,863	6,209	6,430	6,651	6,883
Current Tax Receivable					147	259	274	284	294	304
Other Receivables					1,269	1,495	1,583	1,640	1,696	1,755
Accounts Payable					5,897	5,897	6,246	6,468	6,690	6,923
Current Tax Liabilities					175	147	156	161	167	173
Other Payables					3,911	3,802	4,026	4,170	4,313	4,463
Net Working Capital (NWC)					1,392	2,723	2,884	2,986	3,089	3,197
Change in NWC						1,331	161	103	103	108
<b>Depreciation Schedule</b>										
PPE Opening						11,072	11,050	10,969	10,832	10,639
Plus Capex						1,407	1,407	1,407	1,407	1,407
Less Depreciation						1,429	1,488.12	1,544.40	1,600.38	1,540.71
PPE Closing					11,072	11,050	10,969	10,832	10,639	10,505
<b>Debt &amp; Interest Schedule</b>										
Debt Opening						10,179	8,333	7,117	5,902	4,686
Issuance (repayment)						(1,846)	(1,216)	(1,216)	(1,216)	(1,216)
Debt Closing					10,179	8,333	7,117	5,902	4,686	3,470
Interest Expense						255	218	181	143	106

## E. Balance Sheet 2016-2025

FINANCIAL STATEMENTS	Historical Results					Forecast Period				
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Balance Sheet Check	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Current Price	55.54	Estimated Fair Value	53.02	% Upside	-4.54%	LIVE SCENARIO	1	1 = Base	2 = Bull	3 = Bear
Balance Sheet										
<b>Assets</b>										
Inventory	5,875	6,041	6,252	6,200	5,362	5,863	6,209	6,430	6,651	6,883
Trade Accounts Receivable	4,935	5,134	4,968	4,813	4,597	4,952	5,244	5,431	5,618	5,814
Current Tax Receivable	445	204	286	194	147	259	274	284	294	304
Other Receivables	1,515	1,395	1,609	1,609	1,269	1,495	1,583	1,640	1,696	1,755
Assets Held for Sale	-	-	614	-	329	329	329	329	329	329
Cash & Cash Equivalents	3,738	3,284	2,688	4,987	8,443	6,861	7,283	7,910	8,682	9,563
<b>Current Assets</b>	<b>16,508</b>	<b>16,058</b>	<b>16,417</b>	<b>17,803</b>	<b>20,147</b>	<b>19,789</b>	<b>20,924</b>	<b>22,024</b>	<b>23,270</b>	<b>24,648</b>
Goodwill	10,669	10,575	9,988	10,029	10,028	10,028	10,028	10,028	10,028	10,028
Other Intangible Assets	2,662	2,603	2,526	2,709	2,505	2,505	2,505	2,505	2,505	2,505
Property & Equipment	11,654	11,590	11,335	11,707	11,072	11,050	10,969	10,832	10,639	10,505
Right of Use Assets	-	-	-	2,954	2,902	2,902	2,902	2,902	2,902	2,902
Investments in Equity-Accounted Companies	376	379	412	437	462	462	462	462	462	462
Deferred Tax Assets	1,188	938	837	833	665	665	665	665	665	665
Other non-Current Assets	710	774	2,527	3,511	845	845	845	845	845	845
<b>Non-Current Liabilities</b>	<b>27,259</b>	<b>26,859</b>	<b>27,625</b>	<b>32,180</b>	<b>28,479</b>	<b>28,457</b>	<b>28,376</b>	<b>28,239</b>	<b>28,046</b>	<b>27,912</b>
<b>Total Assets</b>	<b>43,767</b>	<b>42,917</b>	<b>44,042</b>	<b>49,983</b>	<b>48,626</b>	<b>48,215</b>	<b>49,300</b>	<b>50,263</b>	<b>51,316</b>	<b>52,560</b>
<b>Liabilities</b>										
Current Portion of Long-term Debt	1,835	1,064	1,184	1,751	1,846	1,846	1,846	1,846	1,846	1,846
Current Portion of Long-term Liabilities	-	-	-	665	656	656	656	656	656	656
Current Portion of Other Liabilities and Provisions	436	412	465	343	361	361	361	361	361	361
Trade Accounts Payable	5,805	6,027	6,116	6,000	5,897	5,897	6,246	6,468	6,690	6,923
Current Tax Liabilities	148	157	104	156	175	147	156	161	167	173
Other Payables	3,636	3,823	3,859	4,004	3,911	3,802	4,026	4,170	4,313	4,463
Liabilities Held for Sale	-	-	322	-	501	501	501	501	501	501
Short term Debt and Bank overdrafts	588	520	479	224	501	501	501	501	501	501
<b>Current Liabilities</b>	<b>12,448</b>	<b>12,003</b>	<b>12,529</b>	<b>13,143</b>	<b>13,848</b>	<b>13,711</b>	<b>14,293</b>	<b>14,664</b>	<b>15,035</b>	<b>15,424</b>
Debt	6,959	7,655	9,218	10,286	10,179	8,333	7,117	5,902	4,686	3,470
Long-term Lease Liabilities	-	-	-	2,552	2,442	2,442	2,442	2,442	2,442	2,442
Provisions for Pensions and other Employment	3,615	2,927	2,525	2,648	2,629	2,629	2,629	2,629	2,629	2,629
Deferred Tax Liabilities	363	427	472	448	360	360	360	360	360	360
Other non-Current Liabilities and Provisions	1,242	1,053	1,036	1,126	965	965	965	965	965	965
<b>Non-Current Liabilities</b>	<b>12,179</b>	<b>12,062</b>	<b>13,251</b>	<b>17,060</b>	<b>16,575</b>	<b>14,729</b>	<b>13,513</b>	<b>12,298</b>	<b>11,082</b>	<b>9,866</b>
<b>Total Liabilities</b>	<b>24,627</b>	<b>24,065</b>	<b>25,780</b>	<b>30,203</b>	<b>30,423</b>	<b>28,440</b>	<b>27,806</b>	<b>26,961</b>	<b>26,117</b>	<b>25,290</b>
<b>Shareholder's Equity</b>										
Equity Capital	2,221	2,214	2,186	2,179	2,131	2,131	2,131	2,131	2,131	2,131
Additional Paid in Capital and Legal Reserves	6,090	5,944	5,646	5,551	5,104	5,104	5,104	5,104	5,104	5,104
Retained Earnings	11,077	12,167	11,969	12,518	13,687	15,259	16,978	18,786	20,683	22,754
Cumulative Translation Adjustments	(742)	(1,756)	(1,640)	(1,467)	(2,857)	(2,857)	(2,857)	(2,857)	(2,857)	(2,857)
Fair Value Reserves	191	22	(124)	743	(48)	(48)	(48)	(48)	(48)	(48)
Treasury Stock	(72)	(123)	(106)	(108)	(125)	(125)	(125)	(125)	(125)	(125)
NCI	375	384	331	364	311	311	311	311	311	311
<b>Shareholder's Equity</b>	<b>19,140</b>	<b>18,852</b>	<b>18,262</b>	<b>19,780</b>	<b>18,203</b>	<b>19,775</b>	<b>21,494</b>	<b>23,302</b>	<b>25,199</b>	<b>27,270</b>
<b>Total Liabilities &amp; Shareholder's Equity</b>	<b>43,767</b>	<b>42,917</b>	<b>44,042</b>	<b>49,983</b>	<b>48,626</b>	<b>48,215</b>	<b>49,300</b>	<b>50,263</b>	<b>51,316</b>	<b>52,560</b>

## F. Cash Flow Statement 2021-2025

FINANCIAL STATEMENTS	Historical Results					Forecast Period				
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Balance Sheet Check	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Current Price <input type="text" value="55.54"/>	Estimated Fair Value <input type="text" value="53.02"/>	% Upside <input type="text" value="-4.54%"/>		LIVE SCENARIO <input type="text" value="1"/>		1 = Base		2 = Bull		3 = Bear
Cash Flow Statement										
Operating Cash Flow										
Net Earnings						1,572	1,718	1,808	1,898	2,071
Plus: Depreciation & Amortization						1,429	1,488	1,544	1,600	1,541
Less: Changes in Working Capital						1,331	161	103	103	108
Cash from Operations						1,671	3,046	3,250	3,395	3,504
Investing Cash Flow										
Investments in Property & Equipment						1,407	1,407	1,407	1,407	1,407
Cash from Investing						1,407	1,407	1,407	1,407	1,407
Financing Cash Flow										
Issuance (repayment) of debt						(1,846)	(1,216)	(1,216)	(1,216)	(1,216)
Issuance (repayment) of equity						-	-	-	-	-
Cash from Financing						(1,846)	(1,216)	(1,216)	(1,216)	(1,216)
Net Increase (decrease) in Cash						(1,582)	423	627	772	881
Opening Cash Balance						8,443	6,861	7,283	7,910	8,682
Closing Cash Balance					8,443	6,861	7,283	7,910	8,682	9,563
Check					0.000	0.000	0.000	0.000	0.000	0.000

## G. Income Statement 2016-2025

FINANCIAL STATEMENTS	Historical Results					Forecast Period				
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Balance Sheet Check	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Current Price <input type="text" value="55.54"/>	Estimated Fair Value <input type="text" value="53.02"/>	% Upside <input type="text" value="-4.54%"/>		LIVE SCENARIO <input type="text" value="1"/>		1 = Base		2 = Bull		3 = Bear
Income Statement										
Revenue	39,093	40,810	41,774	42,573	38,128	40,952	43,372	44,915	46,459	48,079
Cost of Goods Sold (COGS)	26,640	27,886	28,568	28,313	25,063	26,920	28,510	29,524	30,539	31,604
Gross Profit	12,453	12,924	13,206	14,260	13,065	14,033	14,862	15,391	15,920	16,475
Expenses										
Salaries and Benefits	8,046	8,273	8,458	8,527	7,892	8,477	8,977	9,297	9,616	9,952
R&D	440	450	454	466	429	453	480	497	514	532
Share in Profit of Equity Accounted Investr	(31)	(33)	(30)	(24)	(13)	(26)	(28)	(29)	(30)	(31)
EBITDA	3,998	4,234	4,324	5,291	4,757	5,129	5,432	5,626	5,819	6,022
Depreciation & Amortization	1,180	1,206	1,202	1,901	1,902	1,429	1,488	1,544	1,600	1,541
EBIT	2,818	3,028	3,122	3,390	2,855	3,700	3,944	4,081	4,219	4,481
Interest	541	448	(189)	468	419	255	218	181	143	106
Earnings Before Tax	2,277	2,580	3,311	2,922	2,436	3,445	3,726	3,900	4,075	4,375
Other Income	61	121	435	196	88	179	190	196	203	210
Other Expenses	(575)	(638)	(2,759)	(1,033)	(1,511)	(1,313)	(1,390)	(1,440)	(1,489)	(1,541)
Share in Profit of Non-CoreEquity Accounte	5	-	-	-	2	1	2	2	2	2
EBT	1,768	2,063	987	2,085	1,015	2,312	2,527	2,659	2,790	3,046
Taxes	416	438	490	631	526	740	809	851	893	975
Net Earnings	1,352	1,625	497	1,454	489	1,572	1,718	1,808	1,898	2,071
	3.46%	3.98%	1.19%	3.42%	1.28%	3.84%	3.96%	4.02%	4.08%	4.31%



## H. DCF Model

FINANCIAL STATEMENTS	Historical Results					Forecast Period				
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Balance Sheet Check	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Current Price	55.54	Estimated Fair Value	53.02	% Upside	-4.54%	LIVE SCENARIO	1	1 = Base	2 = Bull	3 = Bear

## DCF Model

## Assumptions

Tax Rate	32.0%
Discount Rate	6.99%
Perpetual Growth Rate	1%
EV/EBITDA Multiple	8.5x
Transaction Date	30/06/2021
Current Price	55.54 June 30 2021
Shares Outstanding	533

Discounted Cash Flow	Entry	2021	2022	2023	2024	2025	Exit
Date	30/06/2021	31/12/2021	31/12/2022	31/12/2023	31/12/2024	31/12/2025	31/12/2025
Year Frac		0.50	1.00	1.00	1.00	1.00	1
EBT		2,312	2,527	2,659	2,790	3,046	
Interest		255	218	181	143	106	
EBIT		2,568	2,745	2,839	2,934	3,152	
Less: Cash Taxes		822	878	909	939	1,009	
Plus: D&A		1,429	1,488	1,544	1,600	1,541	
EBITDA		3,997	4,233	4,384	4,534	4,693	
Less: Capex		1,407	1,407	1,407	1,407	1,407	
Less: Changes in NWC		1,331	161	103	103	108	
Unlevered FCF		437	1,787	1,965	2,086	2,169	
(Entry)/Exit							38,223
Net FCF	-	220	1,787	1,965	2,091	2,169	38,223
Transaction FCF	(36,265)	220	1,787	1,965	2,091	2,169	38,223

## Terminal Value

Perpetual Growth	36,559
EV/EBITDA	39,886
Average	38,223

## Present Value

(36,052)	2684%	(36,265)	220	-	-	-	-
1,614	-120%	-	-	1,787	-	-	-
1,659	-124%	-	-	-	1,965	-	-
1,650	-123%	-	-	-	-	2,091	-
1,599	-119%	-	-	-	-	-	2,169
28,186	-2099%	-	-	-	-	-	38,223
(1,343)	100%	(36,265)	220	1,787	1,965	2,091	40,392

## Intrinsic Value

Enterprise Value	34,922
Plus: Cash	8,443
Less: Debt	15,123
Equity Value	28,242

## Market Value

Market Cap	29,585
Plus: Debt	15,123
Less: Cash	8,443
EV	36,265

## Rate of Return

Current Price	55.54
Target Price	53.02
Target Price Upside	-5%
IRR	6%

## Equity Value/Share

53.02

## Equity Value/Share

55.54

-4.76%

## I. Sensitivity Analysis

### Sensitivity Analysis

#### Share Price Sensitivity

		Revenue Growth				
		-3.6%	2.4%	7.4%	12.4%	17.4%
Exit Multiple	6.5x	38.84	43.03	46.52	50.01	53.49
	7.5x	41.76	46.12	49.76	53.40	57.05
	8.5x	44.67	49.22	53.01	56.80	60.60
	9.5x	47.59	52.32	56.26	60.20	64.15
	10.5x	50.50	55.41	59.51	63.60	67.70

		Revenue Growth				
		-3.6%	2.4%	7.4%	12.4%	17.4%
WACC	8.99%	35.42	39.17	42.30	45.42	48.55
	7.99%	39.52	43.62	47.04	50.46	53.88
	6.99%	44.68	49.23	53.03	56.82	60.61
	5.99%	51.51	56.67	60.96	65.25	69.55
	4.99%	61.22	67.24	72.26	77.28	82.29

#### Revenue Growth +/-5%

Change	\$/Share
0.0%	53.02
-5.0%	38.67
+5.0%	69.80

#### COGS +/-5%

Change	\$/Share
0.0%	53.02
-5.0%	81.63
+5.0%	24.41

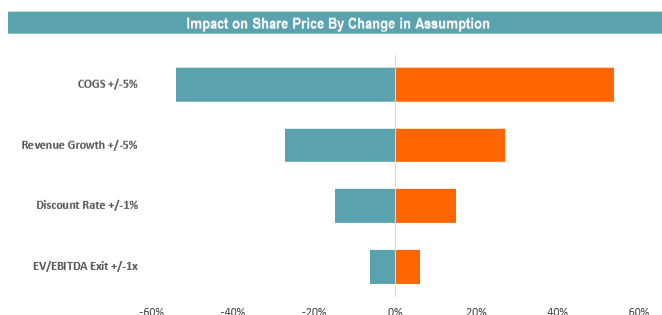
#### Discount Rate +/-1%

Change	\$/Share
0.0%	53.02
-1.0%	60.95
+1.0%	47.04

#### EV/EBITDA Exit +/-1x

Change	\$/Share
0.0x	53.02
-1.0x	49.77
1.0x	56.27

Assumption	-5% Δ	Abs Change	Rank	Output Driver	Pos	Neg
Revenue Growth +/-5%	-27%	27%	1	6% EV/EBITDA Exit +/-1x	6%	-6%
COGS +/-5%	54%	54%	2	15% Discount Rate +/-1%	15%	-15%
Discount Rate +/-1%	15%	15%	3	27% Revenue Growth +/-5%	27%	-27%
EV/EBITDA Exit +/-1x	-6%	6%	4	54% COGS +/-5%	54%	-54%



## J. Multiples

Multiples						
Intrinsic Value	2,020	2,021	2,022	2,023	2,024	2,025
EV/Sales	0.7x	0.7x	0.7x	0.6x	0.6x	0.6x
EV/EBITDA	5.9x	5.5x	5.2x	5.0x	4.9x	4.7x
EV/EBIT	9.9x	7.6x	7.2x	6.9x	6.7x	6.3x
P/E	19.3x	10.7x	10.2x	9.6x	9.3x	9.6x
P/S	0.8x	0.7x	0.7x	0.7x	0.6x	0.6x
P/B	1.6x	1.5x	1.4x	1.3x	1.2x	1.1x

Market Value	2,020	2,021	2,022	2,023	2,024	2,025
EV/Sales	1.0x	0.9x	0.8x	0.8x	0.8x	0.8x
EV/EBITDA	7.6x	7.1x	6.7x	6.4x	6.2x	6.0x
EV/EBIT	12.7x	9.8x	9.2x	8.9x	8.6x	8.1x
P/E	20.3x	11.2x	10.7x	10.1x	9.7x	10.0x
P/S	0.8x	0.7x	0.7x	0.7x	0.6x	0.6x
P/B	1.6x	1.5x	1.4x	1.3x	1.2x	1.1x

## K. WACC Calculation

## WACC Calculation

## Cost of Equity

CAPM	
Risk-free rate	-0.22%
Beta	1.17
Market Premium	7.75%
<b>Ke</b>	<b>8.87%</b>

## Cost of Debt

Interest	419
Debt	12,025
Kd	3.48%
Tax Rate	32.00%
<b>Kd (After tax)</b>	<b>2.37%</b>

## WACC

Ke	8.87%
Ve	29,585
Kd	2.37%
Vd	12,025
<b>WACC</b>	<b>6.99%</b>

## L. Regression Analysis and Beta Calculation

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.751905448
R Square	0.565361802
Adjusted R Square	0.565021176
Standard Error	0.011879681
Observations	1278

ANOVA

	df	SS	MS	F	Significance F
Regression	1	0.234238765	0.234238765	1659.775102	3.9637E-233
Residual	1276	0.180077809	0.000141127		
Total	1277	0.414316574			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	0.000210648	0.000332547	0.633437414	0.526561555	-0.000441751	0.000863046	-0.000441751	0.000863046
X Variable 1	1.173022077	0.028792645	40.74033753	3.9637E-233	1.11653595	1.229508204	1.11653595	1.229508204

## M. Extract of Index and Saint Gobain Returns

Date	CAC40	SG	CAC40 Returns	SG Returns
05/07/2021	6567.540039	56.650002	0.00224027	0.0042546
02/07/2021	6552.859863	56.41	-0.000146474	-0.002475668
01/07/2021	6553.819824	56.549999	0.007066833	0.018185055
30/06/2021	6507.830078	55.540001	-0.009075102	-0.017686593
29/06/2021	6567.430176	56.540001	0.001434908	0.022608066
28/06/2021	6558.02002	55.290001	-0.009791842	-0.013735283
25/06/2021	6622.870117	56.060001	-0.00124862	-0.002313543
24/06/2021	6631.149902	56.189999	0.01222397	0.00464865
23/06/2021	6551.069824	55.93	-0.009140161	-0.014796547
22/06/2021	6611.5	56.77	0.001357048	0.008169046
21/06/2021	6602.540039	56.310001	0.005081301	0.014777419
18/06/2021	6569.160156	55.490002	-0.014565831	-0.015785722
17/06/2021	6666.259766	56.380001	0.002045781	-0.000531803
16/06/2021	6652.649902	56.41	0.001977535	-0.003884884
15/06/2021	6639.52002	56.630001	0.003501919	-0.001938685
14/06/2021	6616.350098	56.740002	0.002377026	-0.00035229
11/06/2021	6600.660156	56.759998	0.008274651	0.002118626
10/06/2021	6546.490234	56.639999	-0.002584001	-0.005617978
09/06/2021	6563.450195	56.959999	0.001899009	-0.012824991
08/06/2021	6551.009766	57.700001	0.001138479	0.004002088
07/06/2021	6543.560059	57.470001	0.004281976	0.00948535
04/06/2021	6515.660156	56.93	0.001189356	0.009705338
03/06/2021	6507.919922	56.382786	-0.002085418	0.04189237
02/06/2021	6521.52002	54.115749	0.004949628	-0.007704682
01/06/2021	6489.399902	54.535931	0.006550158	0.01805911
31/05/2021	6447.169922	53.568531	-0.005696995	-0.005803413
28/05/2021	6484.109863	53.881226	0.007520523	0.009890176
27/05/2021	6435.709961	53.35355	0.006901224	-0.006188621
26/05/2021	6391.600098	53.685791	0.000208141	-0.001635445
25/05/2021	6390.27002	53.773735	-0.002843137	-0.001994962
24/05/2021	6408.490234	53.881226	0.003457354	0.001089282
21/05/2021	6386.410156	53.822598	0.00675172	0.011198872
20/05/2021	6343.580078	53.226521	0.012938863	0.018130857
19/05/2021	6262.549805	52.278664	-0.014341336	-0.019428197
18/05/2021	6353.669922	53.314468	-0.002148488	-0.002559397
17/05/2021	6367.350098	53.451271	-0.002786163	-0.016363947
14/05/2021	6385.140137	54.340496	0.015395194	0.015893256
13/05/2021	6288.330078	53.49036	0.001430081	-0.004365129
12/05/2021	6279.350098	53.724876	0.001908284	0.00182208
11/05/2021	6267.390137	53.627163	-0.01857192	-0.020349869

## N. Bloomberg Peer comparison Multiples "Source: Bloomberg Finance L.P."

EQRV SAINT GOBAIN Equity <span>×</span> <span>+</span>																																																																																									
<span>←</span> <span>→</span> SAINT GOBAIN Equity <span>▼</span>   EQRV <span>▼</span>   Related Functions Menu <span>▼</span>																																																																																									
<b>SGO FP</b> € <span>↓</span> <b>63.94</b> <span>-0.43</span> P63.94 / 63.95P 24180 x182 <span>At 16:38 d</span> Vol 946,927 0 64.11P H 64.48P L 63.71P Val 60.652M																																																																																									
<b>SGO FP Equity</b> <span>Export</span> <span>Settings</span>																																																																																									
Comp Source <span>Analyst Curated (BI)</span> <span>Index</span> <span>BI GL Build Mat Val</span> <span>Curr</span> <span>EUR</span>																																																																																									
<span>vs Comps</span> <span>Group Dynamics</span> <span>vs Self</span>																																																																																									
<b>Analysis of SGO FP Multiples - Premium to Comps</b> <span>3M</span> <span>6M</span> <span>1Y</span> <span>2Y</span> <span>5Y</span>																																																																																									
<table border="1"> <thead> <tr> <th colspan="5">Current vs 5Y Average Historical Premium</th><th colspan="3">5Y Historical Premium Range</th><th colspan="2">Implied @ Hist Avg</th></tr> <tr> <th>Metric</th><th>Current</th><th>Hist Avg</th><th>Diff</th><th># SD</th><th>3M Trend</th><th>Low</th><th>Range</th><th>High</th><th>Multiple</th></tr> </thead> <tbody> <tr> <td colspan="10"><b>Current Price</b></td></tr> <tr> <td>1) BF P/E</td><td>-38%</td><td>-38%</td><td>0%</td><td>0.0</td><td></td><td>-54%</td><td></td><td>-21%</td><td>12.6x</td></tr> <tr> <td>2) BF EV/EBITDA</td><td>-41%</td><td>-38%</td><td>-3%</td><td>-0.8</td><td></td><td>-50%</td><td></td><td>-28%</td><td>7.1x</td></tr> <tr> <td>3) BF EV/EBIT</td><td>-39%</td><td>-36%</td><td>-3%</td><td>-0.8</td><td></td><td>-50%</td><td></td><td>-26%</td><td>10.0x</td></tr> <tr> <td>4) BF EV/Rev</td><td>-65%</td><td>-68%</td><td>3%</td><td>1.7</td><td></td><td>-73%</td><td></td><td>-64%</td><td>0.9x</td></tr> <tr> <td>5) LF P/BV</td><td>-26%</td><td>-41%</td><td>14%</td><td>2.7</td><td></td><td>-53%</td><td></td><td>-24%</td><td>1.4x</td></tr> </tbody> </table>										Current vs 5Y Average Historical Premium					5Y Historical Premium Range			Implied @ Hist Avg		Metric	Current	Hist Avg	Diff	# SD	3M Trend	Low	Range	High	Multiple	<b>Current Price</b>										1) BF P/E	-38%	-38%	0%	0.0		-54%		-21%	12.6x	2) BF EV/EBITDA	-41%	-38%	-3%	-0.8		-50%		-28%	7.1x	3) BF EV/EBIT	-39%	-36%	-3%	-0.8		-50%		-26%	10.0x	4) BF EV/Rev	-65%	-68%	3%	1.7		-73%		-64%	0.9x	5) LF P/BV	-26%	-41%	14%	2.7		-53%		-24%	1.4x
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View All Comps Below																																																																																									
<b>Summary of Current Multiples</b>																																																																																									
<span>11</span>	Name	2Y Corr	Mkt Cap (EUR)	BF P/E	BF EV/EBITDA	BF EV/EBIT	BF EV/Rev	LF P/BV																																																																																	
	Cie de Saint-Gobain		34.05B	12.5x	6.7x	9.5x	1.0x	1.8x																																																																																	
	Current Premium to Comps Mean			-38%	-41%	-39%	-65%	-26%																																																																																	
	Mean (Including SGO FP)		19.27B	20.2x	11.3x	15.6x	2.7x	2.4x																																																																																	
<span>12</span>	Holcim Ltd	0.75	30.28B	11.8x	6.8x	10.0x	1.7x	1.2x																																																																																	
<span>13</span>	CRH PLC	0.72	34.42B	19.9x	10.7x	15.6x	1.8x	2.1x																																																																																	
<span>14</span>	HeidelbergCement AG	0.69	14.87B	8.8x	5.9x	8.9x	1.2x	1.1x																																																																																	
<span>15</span>	Eagle Materials Inc	0.58	5.41B	16.2x	10.6x	14.7x	3.8x	4.6x																																																																																	
<span>16</span>	Sika AG	0.55	43.46B	42.4x	25.6x	31.5x	5.2x	12.7x																																																																																	
<span>17</span>	Vicat SA	0.54	1.93B	9.0x	5.6x	10.1x	1.1x	0.9x																																																																																	
<span>18</span>	Martin Marietta Materials Inc	0.53	20.10B	28.7x	16.5x	22.5x	5.0x	3.8x																																																																																	
<span>19</span>	Cementos Argos SA	0.48	1.67B	20.3x	7.5x	13.8x	1.5x	0.9x																																																																																	
<span>20</span>	Cemex SAB de CV	0.47	9.93B	10.8x	6.4x	10.2x	1.3x	1.2x																																																																																	
<span>21</span>	Vulcan Materials Co	0.47	20.99B	32.4x	17.4x	24.0x	5.0x	3.9x																																																																																	
<span>22</span>	UltraTech Cement Ltd	0.28	24.55B	29.2x	16.4x	20.9x	4.2x	4.8x																																																																																	
<span>23</span>	Dangote Cement PLC	0.00	8.83B	12.3x	7.3x	8.7x	3.6x	5.4x																																																																																	

Grey values are excluded from group stats.

[Analyze List](#)