Ratio Analysis for CRH

Electronic Assignment Cover sheet- Please complete out and attach as the first page of Assignment.

Student Declaration: By submitting this assignment, I confirm that I am aware of DBS's policy regarding cheating, plagiarism and all other forms of academic impropriety. The coursework submitted is my own or my group's work, and all other sources consulted have been appropriately acknowledged. I am aware that in the case of doubt an investigation will be held.

Student Name:

Arslan Haider **Student No.** 20000154

Praise Chubiy-ojo Yakubu **Student No.** 20006951

Muhammet Furkan Yavuz **Student No.** 20014641

Vedant Tomer **Student No.** 20015122

Phitsinee Thongnun **Student No.** 20015536

Assignment Title: An Analysis and Interpretation of Financial Accounts Using CHR Annual Report as a case study.

Date of Submission: 23rd February 2024 **Word Count:** 2962 words

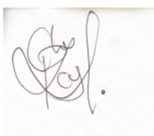
Signed: 

Table of Contents

Introduction

This report undertakes a comprehensive financial analysis and interpretation of the financial accounts of Cement Roadstone Holdings (CRH), a building materials business headquartered in Dublin, Ireland. We have studied financial statements, mainly balance sheets and income statements, to analyze CRH's profitability, liquidity, and operational efficiency to understand the company's performance and potential for growth over four years, from 2019 to 2022. It is also pertinent to note that for 2019 and 2021, we have used the restated amounts to calculate relevant ratios.

The report is structured as follows: The first four chapters will explore CRH's profitability, liquidity, operational efficiency, and the company's potential for growth and value generation for shareholders using select financial ratios for each performance metric. The final chapter will provide a conclusion on the soundness of CRH's financial health, collating the insights gained from each of the first four chapters. The results of the ratio analysis are reproduced in Appendix 1.

Profitability Ratios

Gross Profit Margin Ratio:

Gross profit margin (GPM) measures how well a company has managed the cost of goods sold. Table 1 presents the calculated GPM values from 2019 to 2023.

Year	Gross Margin	Year-on-Year Change
2019	32.96%	
2020	33.21%	↑ **0.75.** %
2021	33.75%	↑ **1.61** %
2022	33.25%	↓**1.48**

Table 1

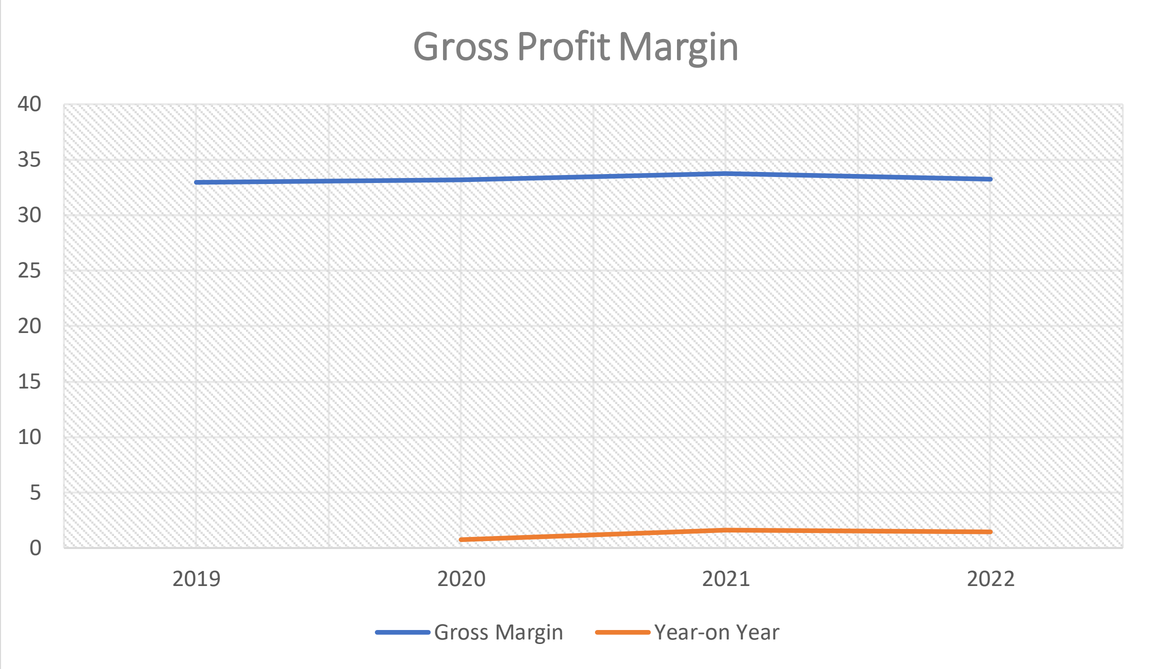


Figure 1

The gross profit margin has remained stable for the four years under analysis. The consistent gross profit margin shows effective managerial control over costs for CRH. In 2020, the ratio value has remained stable despite a $254 million impairment charge added to the cost of sales, as Note 4 shows. Consequently, CRH's gross profit should have declined because of the increase in the cost of goods sold. To keep the gross profit stable, the sales price should have otherwise gone up to balance the increase in costs of goods sold in that year. Since the sales price did not increase, to balance the increase in costs of goods sold, CRH made an offsetting entry for sub-contractor costs with the net effect of keeping the gross margin in check. Overall, CRH's stable gross profit margin across the years shows effective cost management and operational efficiency.

Net Margin Ratio:

The net margin ratio measures a company's profitability and is generally considered a better measure than the gross profit margin since it also captures the impact of operating costs on profit. Table 2 shows the movement in net margin ratio value for CRH between 2019 and 2022.

Year	Net Margin	Year-on-Year Change
2019	9.93%	
2020	8.20%	↓ **17.38**%
2021	11.41%	↑ **39.03** %
2022	11.90%	↑ **4.34**

Table 2

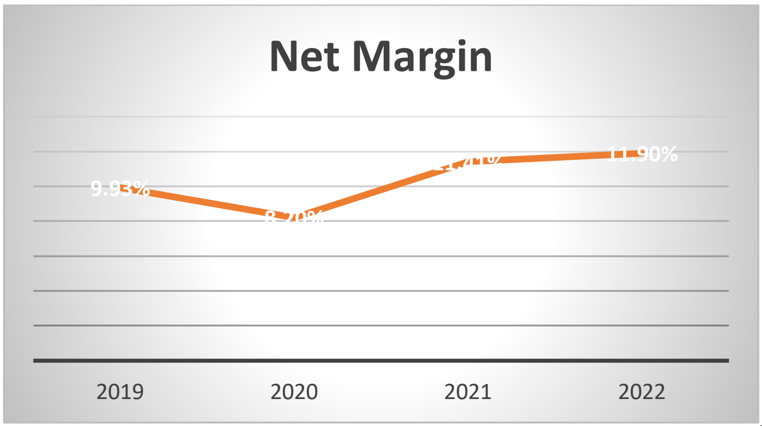


Figure 2

In 2020, the significant impact of the pandemic resulted in high impairment charges, leading to lower net profit before tax figures for the company. Consequently, although the gross margin ratio remained relatively consistent with previous years, the net margin ratio reached its lowest value between 2019 and 2022, at 6.03%, due to an increase in operating costs of $419 million (mainly due to an increase in administrative expenses by $512 million), as Note 4 shows.

In 2021 and 2022, the net margin ratio hovered around 10%, indicating improved profitability for CRH as CRH revenues by almost 12% compared to previous years.

Liquidity and Solvency Ratios

Current Ratio:

Current ratio is a measure of short-term liquidity and tells if a company is able to pay off short-term obligations with its current assets. Table 3 shows the calculated values of current ratio for the 4 years under analysis.

Year	Current Ratio	Year-on-Year Change
2019	1.34:1	
2020	2.01:1	↑**49.75** %
2021	1.85:1	↓**7.66** %
2022	1.67:1	↓ **10 %**

Table 3

Between 2019 and 2020, both current assets and current liabilities decreased. The drop in current assets value came from cash and cash equivalents (from $ 9918 million to $ 7721 million). The decrease in current liabilities, as explained earlier, came from reduction in the value of interest-bearing loans and borrowings by $1257 million. The current ratio increased by 49% because there was lesser decrease in current assets than current liabilities showing much improved liquidity for CRH. In 2019, the company had also opted for bank overdraft as part of notional cash pooling, leading to a reduction of $5.7 billion in current assets.

In 2021, the trend reversed for CRH as its current assets decreased by a greater number than the decrease in current liabilities, mostly because of reduction in cash and cash equivalents. In 2022, current assets showed an increase which was dwarfed by the comparative increase in current liabilities.

Quick Ratio

Quick ratio, also known as acid-test ratio, measures the short-term liquidity of a company. The year-on-year calculations of quick ratio for CRH are presented in the Table 4 below.

Year	Quick Ratio	Year-on-Year Change
2019	1.10:1	
2020	1.59:1	↑**44.17** %
2021	1.38:1	↓**13.38** %
2022	1.29:1	↓**13.29 %**

Table 4

Between 2019 and 2020, the ratio increased by 44.17% owing to a decrease in current liabilities. This is because current assets had gone down (mainly because of decrease in cash and cash equivalents from $9918 million to $7721 million) which should have brought about an otherwise smaller quick ratio value. So the increase in quick ratio value can only be explained by a decrease in liabilities to the tune of $5401 million, coming primarily from reduction in the value of interest-bearing loans and borrowings (by $1257 million). As note 26 of 2020 annual reports shows, this is because the short term interest-bearing loans and borrowings were reclassified as long-term borrowings and loans, corroborated by note 23(ii) on analysis of net debt that shows an increase in non-current liabilities. The company issued a total of $2.3 billion in euro-denominated bonds and to offset any liquidity-related risks due to COVID-19 utilized the revolving credit facility of $4 billion. That indicates CRH had enough cash to meet its short-term obligations.

From 2020 to 2021, quick ratio dropped by 13.38%. The decrease in current assets was bigger than the decrease in current liabilities which means that the drop in quick ratio essentially came from changes in the values of current assets. As Note 21 of 2021 annual report shows that the decrease in cash and cash equivalents had come from ‘exchange rate effects’ to the tune of $297 million.

Lastly, between 2021 and 2022, the further drop in quick ratio value can be attributed to increase in CRH’s current liabilities, a major chunk came from interest-bearings loans and borrowings that increased by $942 million. It showed that loans received in 2022 were expected to be paid off within the year, such as $400 million in respect of letters of credit due within one year.

In conclusion, with respect to quick ratio, our analysis shows that CRH has been able to successfully keep itself afloat during these years and have not had financial difficulties impacting the company’s ability to pay off any short-term obligations.

Gearing Ratio

Gearing ratio measures the level of financial leverage a company has. Table 5 shows values for CRH's gearing ratio.

Year	Gearing Ratio	Year-on-Year Change
2019	32%	
2020	36%	↑**11.27** %
2021	33%	↓**8.32** %
2022	27%	↓**16 %**

Table 5

As we have shown, CRH's gearing ratio value has remained relatively stable. Between 2019 and 2020, the increase of 9.74% in gearing value can be imputed to increase in long-term debt. As noted above, in 2020, a $3.5 billion revolving credit facility was used and extended to 2025 and then issues the euro-denominated bond at a weighted average maturity of 7 years. In 2021, the value drop of 7.98% was due to decrease in interest-bearing loans and borrowings which was a result of bank overdrafts of $9 million and bank loans of $111 million.

The gearing ratio then dropped to 7.98% between 2020 (35.00%) and 2021 (32.21%), with the company's Long Term Debt decreasing by $1,020 million and its Total Equity increasing by $566 million. Lastly, between 2021 and 2022, the decrease in long-term debt, majorly, was due to CHF 330 million for repayment of bond due in September 2022. The bond balance was further reduced by a decrease in the cumulative fair value hedge adjustment of $ 200 million and a positive adjustment of $ 300 million in exchange rates.

Our analysis shows that CRH has increased its total equity value and reduced its leverage levels by decreasing long-term debt. However, CRH has kept financial risk within the range of 25-60%, considered reasonable for established companies.

Efficiency Ratios

Inventory Turnover:

Inventory turnover ratio measures the number of times inventory is sold and replaced over a specific period of time. Table 6 shows the year-on-year inventory turnover values for CRH.

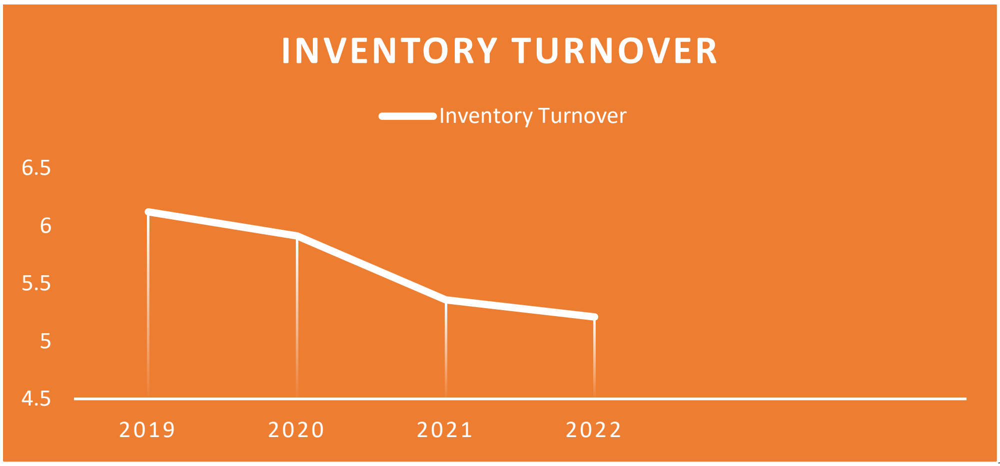


Figure 6

Year	Inventory Turnover	Year-on-Year Change
2019	6.12	
2020	5.91	↓**3.46** %
2021	5.36	↓**9.35** %
2022	5.21	↓**2.80%**

Table 6

The trend in inventory turnover for CRH has been declining over the four-year period, as Figure 6 shows, dropping from 6.12 times in 2019 to 5.21 times in 2022, marking a significant -14.94% change. This decrease raises concerns about the efficiency of inventory management, potentially indicating slow-moving or obsolete stock.

Inventory Days:

Inventory Days ratio measures how quickly a company can turn its inventory in sales. Table 7 presents the calculated values of Inventory Days ratio for CRH.

Year	Inventory Days	Year-on-Year Change
2019	59.61	
2020	61.75	↓**3.59** %
2021	68.11	↓**10.31** %
2022	70.08	↓**2.88%**

Table 7

In tandem with the declining inventory turnover, the average inventory days for CRH plc have seen a notable increase, rising from 59.61 days in 2019 to 70.08 days in 2022 – a substantial 17.56% surge. This prolonged conversion of inventory into sales hints at potential challenges in supply chain of CRH.

Accounts Receivable Days:

Accounts receivable days ratio measures the average number of days it takes for a company to collect payments on credit sales. Table 8 gives the calculated values of accounts receivable days ratio for CRH.

Year	Accounts Receivable Days	Year-on-Year Change
2019	54.90	
2020	54.06	↓**-1.52** %
2021	71.14	↑**31.52** %
2022	50.	↓**28.36%**

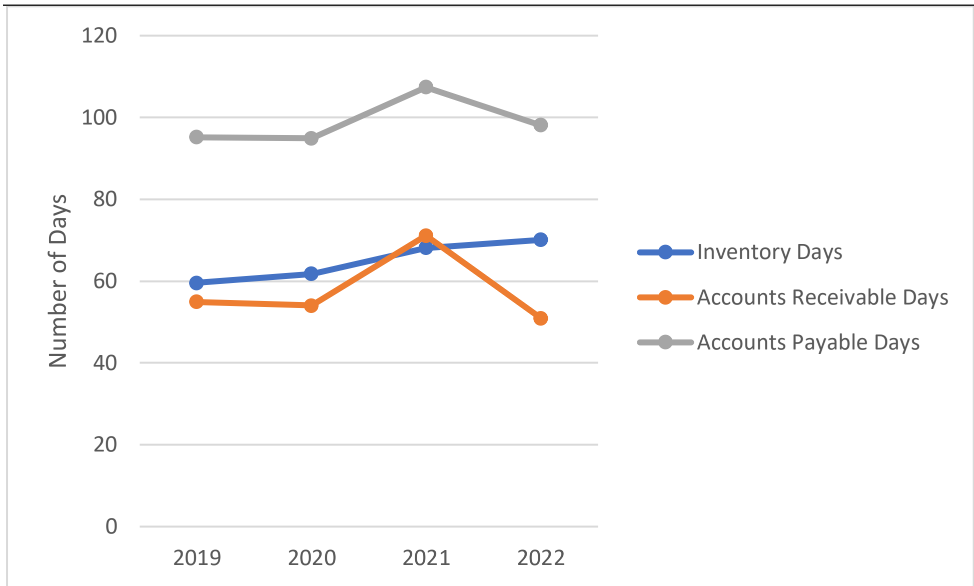
Table 8

While there is an overall positive trend in accounts receivable days, decreasing from 54.90 days in 2019 to 50.96 days in 2022 (-7.16% change), a noteworthy spike occurred in 2021. Overall, CRH has been able to reduce receivable days which may be due to better collection processes or improvement in the relationship with customers.

Accounts Payable Days:

Accounts payable days ratio assesses how long a company takes to pay its suppliers and vendors. The calculated values for CRH have been furnished in Table 9 below.

Accounts payable days have demonstrated improvement, decreasing from 95.15 days in 2019 to 98.12 days in 2022, reflecting a 3.12% change. However, here also a spike was observed in 2021, indicating a possible blowback from suppliers.



Overall efficiency can be improved by managing accounts receivable days, inventory days and accounts payable days together, as the table 9 shows.

Year	Inventory Days	Receivable Days	Payable Days	Net Impact
2019	59	54	95	18
2020	61	54	94	21
2021	68	71	107	32
2022	70	50	98	22

Table 9

For CRH to improve overall efficiency, the net number of days (Inventory days + Receivable days – Payable days) has to be reduced which means CRH needs to improve supply chain management to reduce inventory days. For example, if in 2022, inventory days are reduced to 59, the lowest for CRH in 2019, and payable days are extended to 107, for CRH, the net number of days can be reduced to 2, as Table 10 shows below.

Year	Inventory Days	Receivable Days	Payable Days	Net Impact
2022	59	50	107	2

Table 10

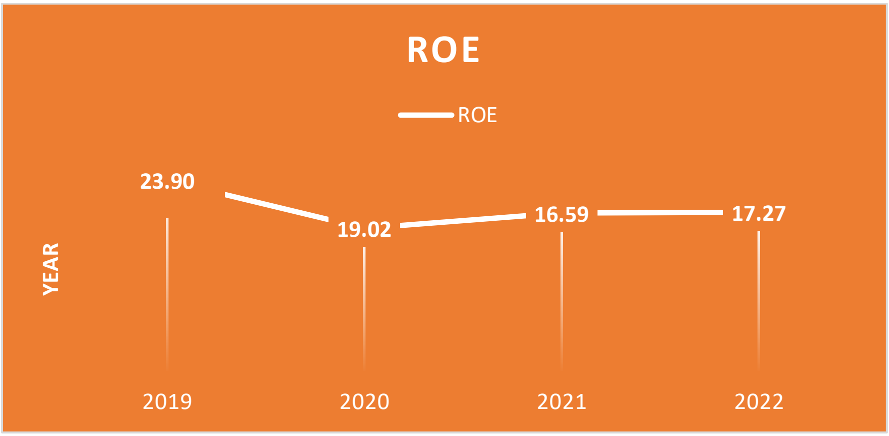
Investment Ratios

Return on Equity (ROE):

Return on equity (ROE) measures a company's profitability relative to its shareholder's equity. Table 11 shows the ROE values for CRH over the four years under analysis.

Year	Return on Equity	Year-on-Year Change
2019	23.90%	
2020	19.02%	↓ **20.43**%
2021	16.59%	↓**12.78** %
2022	17.27%	↑ **5.29**%

Table 11



In 2019, the return on equity for CRH was at 18.66%, which took a dive in 2020 due to a sharp decline in the company's profits before tax owing to increased operating expenses (about 400 million increases in administrative expenses, as given in Note 4). In 2021, the increase of 10.50% in the value of ROE was due to an increase in profits before tax by $1439 million which came from the increase in revenues. The year 2022 showed a marginal improvement in the return on equity (ROE) because of a marginal increase in CRH's profit before tax.

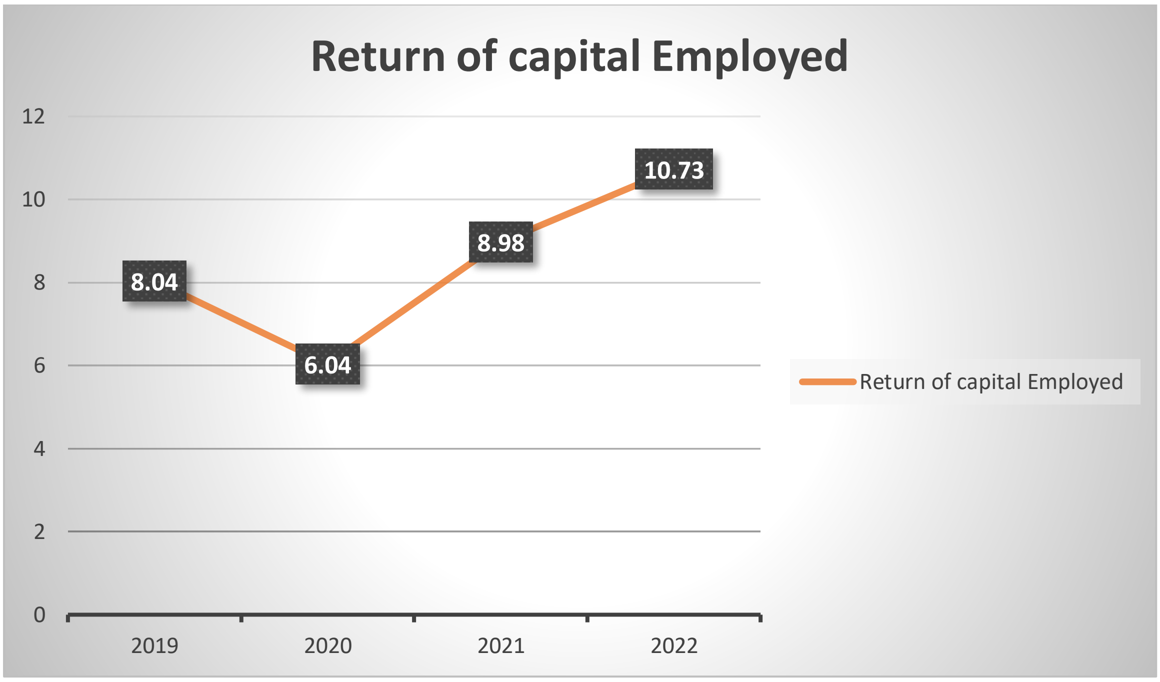
CRH's return on equity (ROE) ratio shows that ROE has stayed consistently above 15%, except for a decrease in 2020. The consistent improvement in ROE shows CRH's drive towards achieving pre-COVID levels of ROE.

Return on Capital Employed (ROCE):

Return on capital employed (ROCE) measures financial efficiency with respect to a company's use of capital to generate profits. Table 12 shows the trend of ROCE value over the years under analysis.

Year	Return on Capital Employed	Year-on-Year Change
2019	8.04%	-
2020	6.04%	↓ -24.88%
2021	8.98%	↑ 48.74%
2022	10.73%	↑ 19.45 %

Table 12



In 2020, the ROCE registered a decline of 29.27% due to a decrease in revenue and an increase in operating costs showing weak management control over costs and inability to maintain revenue growth. COVID-19 did have an impact on CRH, as the 2020 annual report clearly states that CRH did have an increase in one-off costs to the tune of $122 million for pandemic-related restructuring items.

In 2021, the ROCE increased by 88.44% due to a considerable increase in profits for CRH. In 2022, CRH further improved ROC, bringing the value to 9.56%, a total increase of almost 14% despite having a smaller value of capital employed, attesting to CRH’s improved financial efficiency.

Price-to-Earnings Ratio (P/E):

Price-to-Earnings ratio measures the potential of a company in terms of what the investors are willing to pay for each dollar of earnings. Table 13 shows the trend line for the P/E ratio values over the four years from 2019 to 2022.

Table 13

Year	Price-to-Earnings Ratio	Year-on-Year Change
2019	19.86%	-
2020	29.75 %	↑ 49.78%
2021	19.53%	↓34.45%
2022	11.37%	↓ 41.80 %

For the 4 years under analysis, the share price has remained stable except for 2021, where the share price registered an increase of around 40%, increasing the EPS and in turn, decreasing the P/E value for the year. In 2020, the P/E ratio value was the highest due to an increase in share price and a decrease in EPS (PAT decrease of 573 million from the prior year). A higher valuation of CRH indicates that investors were willing to pay a premium. In 2022, the share price of CRH showed a decline from $59.80 to $39.79 bringing an increase in EPS and hence a decrease in P/E value.

Between 2021 and 2022, CRH's profit after tax decreased by $1279 million causing the movements in EPS and P/E ratio values. Notwithstanding exceptions, the year-on-year changes in EPS, P/E, ROE, and ROCE show that CRH is efficiently using capital and equity to generate profits and that has resulted in a positive outlook among investors regarding earning potential. Except for 2022, CRH has also consistently paid a dividend to its investors.

Conclusion

CRH has established itself as an appealing investment choice for shareholders seeking consistent returns. Its ability to provide dividends and generate capital appreciation is evidenced by favorable financial indicators, showcasing strong operational performance and effective management practices. Investors can rely on CRH's reputation as a reliable cash generator, positioned to yield steady profits and long-term value.

However, a thorough analysis reveals fluctuations in CRH's financial health over the reviewed period. While certain metrics, such as the interest cover, exhibit improvements suggestive of enhanced financial stability, others like the current and quick ratios indicate potential liquidity challenges. These fluctuations underscore the dynamic nature of CRH's business landscape and emphasize the importance of vigilantly monitoring key financial indicators to ensure sustainable growth.

Additionally, CRH's positive trends in profitability and investment demonstrate the company's dedication to operational efficiency, resource management, and profit generation from investments. Despite minor setbacks, CRH has consistently showcased profitability, signaling a robust investment opportunity.

References

Works Cited

CHR , 2020. *CHR Annual Report and form20-F,* Dublin Ireland : s.n.

CRH, 2020&2022. *CRH Annual Report.* Dublin, s.n.

Lumen Financial Account , n.d. [Online]

Available at: https://courses.lumenlearning.com/wm-financialaccounting/chapter/current-ratio/

[Accessed 2024 February 2024].

Tracy, A., 2012. *Ratio Analysis Fundamentals: How 17 Financial Ratios Can Allow You to Analyse Any Business on the Planet.* s.l., Smashword: Bidi Capital,Ltd.

Yahoo Finance, n.d. *CRH PLC (CRH.L) Financials." uk.finance.yahoo.com..* [Online]

Available at: [https://uk.finance.yahoo.com/quote/CRH.L/financials]