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Managerial confidence and capital structure announcement effects on share prices on the Johannesburg Share Exchange

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Background: In an attempt to enhance our understanding of the important determinants of the debt–equity choice, there is a need to explore the behavioural facets driving the decision to issue either debt or equity. Furthermore, the divergent set of implications of equity and debt issues on the share prices are empirical matters that need to be addressed.

Aim: In this article the link is investigated between managerial confidence and the likelihood of issuing debt, as well as the share price implications of equity and debt issue announcements on the Johannesburg Share Exchange (JSE).

Setting: The study is based on the equity bond issue announcements of JSE-listed firms for the period 2000–2020.

Method: In this article, panel data regression and event study approaches are used in a sample of 81 and 113 bond and equity issue announcements, respectively, for 69 firms listed on the JSE.

Results: The main findings of this article indicate that managerial optimism drives debt issuing activities on the JSE and that there are negative and significant abnormal returns associated with the announcement of equity issues.

Conclusion: Overall, we conclude that behavioural finance is an important factor driving capital structure decisions, and that signalling, as well as market-timing concerns drive share price reactions on the JSE.

Contribution: This article highlights the importance of behavioural factors in capital structure decisions and identifies the firm-specific channels through which managerial optimism drives leverage. Additionally, the article sheds light on the role of signalling and market timing in capital structure decisions.

Keywords: bond and equity announcements; capital structure; managerial confidence; optimism; issuance; abnormal returns; event study.

Introduction

Over the past decades, the South African financial markets have experienced a steady growth. The Share Market Capitalisation to Gross Domestic Product (GDP) and Private Sector Credit to GDP grew by 289% and 156%, respectively, over the period 1990–2020.[1] In line with this observation, Machokoto, Areneke and Ibrahim (2020) observe a marked increase of 89% in total debt in South Africa for the period 1990–2015. Given the above context, and the changing landscape of the South African financial markets, it is imperative to re-examine the determinants and implications of the debt–equity choice on share prices of firms listed on the Johannesburg Share Exchange (JSE). Accordingly, the seminal work of Modigliani and Miller (1958) has led to a considerable number of studies, attempting to enhance our understanding of the factors that are reliably important in the determination of optimal capital structure. In light of this, there is a strand of empirical literature that documented the traditional factors driving the choice of leverage in developed markets (See Barclay & Smith 2005; Chen 2004; Myers 1977), and likewise, in the emerging markets of Africa (See Abor & Biekpe 2005; Chipeta & Deressa 2016; Gwatidzo & Ojah 2014; Ramjee & Gwatidzo 2012).

Notwithstanding the above contributions, there is a lack of clarity on the behavioural aspects driving the debt and equity choice for our set of firms. A possible and perhaps promising avenue

1.Calculated from data sourced from the World Development Indicators (2022).

of further inquiry is how managerial confidence drives capital structure decisions. In line with this proposition, information asymmetry in financial markets is likely to drive managers to signal private information. Accordingly, the signalling theory of capital structure suggests that managers typically possess information that is not available to other stakeholders such as creditors and investors (Barclay & Smith 1999; Leland & Pyle 1977; Nenu, Vintilă & Gherghina 2018; Ross 1977). Therefore, the choice of debt over equity can be attributed to higher informational costs associated with equity issues. Thus, to avoid further downward pressure on the share price, managers of undervalued firms would be more inclined to issue debt. Likewise, the addition of debt to the firm's capital structure can be seen as a way management communicates their confidence that the firm has sufficient cash flows to meet future interest payment obligations (Barclay & Smith 2005; Onchong'a et al. 2016). Furthermore, Barclay and Smith (2005) find that confident managers are more likely to issue debt when the firm is undervalued. Thus, we contend that managerial confidence is likely to be associated with debt issuing activity.

We further argue that market-timing considerations drive equity issuing activities (See Baker & Wurgler 2002; Kayhan & Titman 2007; Lemmon et al. 2005). Therefore, an issue of equity conveys information to the investors that the share price is overvalued. The empirical evidence in this regard shows that equity offerings follow a negative price reaction (See Bhana 1998; Masulis 1980; Miller & Rock 1985). Given the above considerations, we conjecture that debt and equity issues are more likely to have divergent implications on the share price of firms listed on the JSE.

Our article contributes to the growing literature on capital structure in the following ways: Firstly, we incorporate behavioural finance aspects into the factors driving capital structure decisions on the JSE. In particular, we examine the role of managerial optimism in driving debt issuing activity and highlight the firm-specific channels through which managerial optimism influences the likelihood of debt issues. Secondly, unlike the predominant literature on capital structure decisions on the JSE (See Chipeta 2016; Gwatidzo & Ojah 2009; Machokoto et al. 2020), we examine factors driving actual debt and equity issues, as opposed to the evolution of leverage ratios.[2] Lastly, we test the signalling and market-timing considerations by exploring the implications of debt and equity issues on share prices on the JSE. Aside from Bhana (1998) who focuses exclusively on the implications of an equity issue announcement on share prices, we explore the divergent nature of the implications of debt and equity issues on share prices in firms listed on the JSE.

The remainder of this article is organised as follows: In section two the theoretical context is discussed and the research hypotheses are formulated; in section three the data and methodology are considered. In section four the basic and empirical results are discussed, while a conclusion is offered in section five and recommendations made for future research.

2.Leverage ratios can be affected by variations in the market value of equity. Thus, leverage ratios can vary significantly, even if there is no debt issue.

Theoretical context and hypothesis development

Managerial confidence

Our first hypothesis attempts to link behavioural finance with variations in capital structure. The behavioural finance literature has argued that human biases directly affect corporate and investment decision making (See De Bondt & Thaler 1987; Kumar & Goyal 2015; Shefrin 2001). In the context of capital structure, Soufani et al. (2012) suggest that chief executive officers (CEOs) are subject to sentiments such as being confident and optimistic, ultimately influencing their choice to issue debt over equity. The empirical literature on behavioural finance and leverage decisions largely confirms a positive association between managerial confidence and the choice of debt. For instance, using the University of Michigan Consumer Sentiment Index as a proxy for managerial confidence, Oliver (2005) finds a positive and significant association between managerial confidence and leverage. In a related study, Barros and Da Silveira (2007) utilise internal measures such as whether a manager is a founder or hired executive, ownership of shares by management, and the duration of time they are holding onto these shares in their personal investment portfolios as an indication of optimism and confidence. They report a significant positive relationship between the confidence proxies and leverage. Likewise, other related studies confirm that overoptimistic or overconfident managers choose high levels of debt and issue more debt than equity (Esghaier 2017; Hackbarth 2008; Hasani Alghar & Rahimian 2018; Malmendier & Tate 2008; Tan 2017). Furthermore, Malmendier and Tate (2015) posit that overconfident CEOs tend to shy away from equity as a form of financing in efforts to protect existing shareholders from perceived dilution. These findings suggest that the more confident a manager is regarding the prospects of their firm, the more they will be inclined to issue debt as a form of financing. Thus, we formulate and test the following hypothesis:

> **H1:** There is a positive and significant relationship between managerial confidence and the choice of debt.

Having established the behavioural factors influencing the choice of debt, we formulate our second hypothesis which is based on the market-timing theory and the potential implications of equity-issue announcements on the share price. The market-timing theory suggests that managers take advantage of market conditions by issuing equity (debt) when the share price is high relative to its book value. Accordingly, the empirical literature on market timing finds that the observed capital structure choices are a result of attempts by managers to take advantage of market conditions (Baker & Wurgler 2002; Huang & Ritter 2005). Consequently, an equity issue may be perceived by the investors as overvalued. This situation is exacerbated by information asymmetry around financial reporting. For instance,

accounting issues such as earnings manipulation, and reporting errors render it difficult for outsiders to make an accurate valuation of the share. Thus, managers are often aware of the biased nature of their reporting, hence this enables them to derive a more accurate valuation of whether the share is under/overvalued. Therefore, based on the assumption that managers are well informed when it comes to their own share valuation, an equity issue may signal to the market that the firm's share price is overvalued. The literature on the effects of corporate financing activity on the share price shows that the use of external financing by means of an equity issue is perceived as unfavourable news to the market (See Covitz & Harrison 1999; Kim, Ko & Wang 2019; Miller & Rock 1985; Myers & Majluf 1984; Seetharam & Da Cunha 2018). Consequently, an equity issue is likely to be followed by a decline in the share price. Given the above arguments, we formulate and test the following hypothesis:

H2: Equity-issue announcements have a negative and statistically significant effect on the share price.

Our third hypothesis is formulated on the basis of the signalling theory, and the potential implications of bond-issue announcements on the share price. The signalling theory asserts that, due to information asymmetries, the market reacts to information released by firms, and that management possess information that outside investors do not have access to (See Bhattacharya 1979; Leland & Pyle 1977; Lopatta, Buchholz & Kaspereit 2016; Ross 1977). Furthermore, not all information possessed by managers can be directly disclosed in financial statements. Therefore, management will attempt to make valuable information-revealing decisions in the hope that the market will react favourably to the news. These actions taken by managers in possession of insider information are perceived by outside stakeholders as 'signals' of firm quality.

The empirical literature on signalling suggests that managers know more about the firm's future prospects than investors (See Besley & Brigham 2003; Ehrhardt & Brigham 2003; Howe & Morillon 2020). Likewise, an issue of debt may be perceived as an obligation of the firm to make regular interest payments over a certain maturity period. Accordingly, Barclay and Smith (2005) argue that managers are aware of the costly risk associated with missing these payments. Therefore, increasing debt may convey a 'credible signal' to the market that management is confident regarding its ability to pay off future obligation in terms of interest payments. Furthermore, the academic literature advanced the notion that the tax deductibility nature of interest payments causes the value of the firm to increase with an issue of debt (See Galai & Masulis 1976; Jensen & Meckling 1976; Leland & Pyle 1977; Myers 1977). Accordingly, there is some evidence in the literature confirming that debt issues are followed by a share price increase (Cornett & Travlos 1989; Flammer 2021; Masulis 1983). Given the above arguments, we formulated and tested the following hypothesis:

H3: Bond issue announcements have a positive and statistically significant effect on the share price.

Data and methodology

Data

We examined a sample of JSE-listed firms engaged in successful equity and bond issues for the period January 2000 – January 2020. We limited our sample period to January 2020 to avoid the confounding effects of coronavirus disease 2019 (COVID-19). Similarly for the event study, we exclude equity and bond announcements during the period of the global financial crisis of 2008 and 2009.[3] Data on security-issue announcements and daily share prices were obtained from Bloomberg, while data on the rest of the firm-specific determinants of the debt equity choice were obtained from IRESS Expert and EquityRT databases. We included financial institutions such as banks, asset management firms and insurance companies because a large proportion of bond issues were conducted by firms in this industry. Because these firms are highly regulated, we assigned them a dummy variable to differentiate them from other industries for both the bond and equity issues. After applying the above criteria, the final sample for bond and equity issues was reduced to 69 firms and 1072 observations. To eliminate the confounding effects of outliers, our variables were winsorised at the 1st and 99th percentile.

Estimation models

In order to examine the factors that drive debt-issuing activity, we utilise the following probit logistic regression model:

$$DEBT_{i,t} = \alpha + \beta_1 \, CONFIDENCE_{i,t} + \beta_2 X'_{i,t} + \varepsilon_{i,t} \qquad \text{[Eqn 1]}$$

Where $DEBT_{i,t}$ is a binary variable that captures the firm's decision to issue debt relative to equity. $\beta_1 \; CONFIDENCE_{i,t}$ captures the effects of managerial confidence[4] on the choice of debt relative to equity, and $\beta_2 X'_{i,t}$ is a vector of firm-specific control variables identified in the literature to influence capital structure. These variables are defined in the Appendix in Table A1.

To examine the impact of capital structure announcements on the share price, we utilise an event study methodology. To achieve this objective, daily share price returns are calculated for the period ranging from minus 250 to minus 20 trading days for the participating firms, as well as the market index (J203) for the same period. Following Wolmarans and Sartorius (2009), we employ a market model to examine the cumulative average abnormal returns (CAARs) for five event

3.To further ensure that our results are not confounded by major corporate actions around the announcement periods, we eliminate firms that engaged in both bond and equity issues for the 60 days around the announcement date.

4.One of the limitations of capital structure decisions and behavioural finance is that a consensus on an agreed proxy has not been reached when it comes to the behavioural measurement of capital structure (De Bondt & Thaler 1987; Shefrin 2001). However, this study considers the percentage of equity owned by directors of the firm. We argue that managerial ownership is a fitting proxy for confidence because a high-percentage ownership holding is indicative that management is confident about the prospects of the firm, and vice-versa. Furthermore, due to the difficulty of measuring confidence quantitatively, we refrain from using the sentiment indices as used in other studies as these do not sufficiently represent the confidence of the board on a firm-level basis.

TABLE 1: The average values of cumulative average abnormal returns across different windows relative to the announcement of bond and equity issues.

Variable	Window	Obs	Mean	SD	Wilcoxon Signed-Rank test	
					z	Prob > |z|
Panel A: Equity issue announcements						
CAAR1	[-20; -3]	18	-0.002318	0.0024344	-3.027***	0.0025
CAAR2	[-2; +2]	5	-0.0080043	0.0079588	-1.753	0.0796
CAAR3	[-1; +1]	3	-0.0125567	0.0065454	-1.604	0.1088
CAAR4	[+3; +20]	18	-0.0012135	0.0022164	-2.156***	0.0311
CAAR5	[-20; +20]	41	-0.0025266	0.0039353	-4.114***	0.0000
Panel B: Bond issue announcements						
CAAR 1	[-20; -3]	18	-0.000379	0.0024198	-0.849	0.3958
CAAR 2	[-2; +2]	5	-0.0005268	0.0017784	-0.674	0.5002
CAAR 3	[-1; +1]	3	-0.0013865	0.0016871	-1.069	0.2850
CAAR 4	[+3; +20]	18	-0.001422	0.0035696	-1.894	0.0582
CAAR 5	[-20; +20]	41	-0.0008549	0.0029121	-2.002**	0.0453

CAAR, cumulative average abnormal returns; SD, standard deviation; Obs, observations.

window periods reported in Table 1. The expected return is expressed as follows:

$$R_{i,t} = \alpha_i + \beta_i (R_{m,t}) + \varepsilon_{i,t} \quad \text{[Eqn 2]}$$

Where $R_{i,t}$ is the return on security i in period t, α_i is the alpha intercept β_i is the beta of firm i. $R_{m,t}$ is the return on the JSE market portfolio at time t, and $\varepsilon_{i,t}$ is the residual term (white noise).

The abnormal returns are calculated as follows:

$$AR_{i,t} = R_{i,t} - R_{m,t} \quad \text{[Eqn 3]}$$

Where $AR_{i,t}$ is the abnormal return of security i at time t, $R_{i,t}$ is the return on security i at time t, $R_{m,t}$ is the return on the market index at time t. Thus, the average abnormal return is estimated as follows:

$$AAR_t = \sum_{t=1}^{N} \varepsilon_{i,t}/N \quad \text{[Eqn 4]}$$

Where AAR_t is the average abnormal return for the number of bond and equity issues at time t, N is the total number of bond or equity issue announcement used in the sample. The AARs are summed up through the entire event window to form a CAARs as follows:

$$CAAR_t = \sum_{t=1}^{N} AAR_t \quad \text{[Eqn 5]}$$

The significance of the CAARs is tested using the Wilcoxon Signed-Rank test for CAARs relating to equity announcements as they were found to be non-parametric. A classic parametric t-test for CAARs is utilised for the bond announcements as they are normally distributed.

Ethical considerations

The authors confirm that the project does not involve human participants or the use of their data. The authors confirm that they have collected data that are freely accessible in the public domain only.

Ethical clearance was obtained from the Research Ethics Committee from the University of the Witwatersrand.

TABLE 2: Summary of descriptive statistics.

Variable	Observations	Mean	SD	Min.	Max.
Confidence	1072	6.3631	10.9473	0.0000	49.0158
Size	1072	4.1760	0.8802	2.0132	6.0581
Profitability	1072	0.0524	0.0854	-0.2760	0.2809
Leverage	1072	0.5532	0.2457	0.0000	1.1163
Tangibility	1072	0.2352	0.2594	0.0000	0.9641
MTB	1072	2.3326	2.4743	0.0000	24.9638
Financial	1072	0.2043	0.4033	0.0000	1.000

MTB, market-to-book; SD, standard deviation; Min, minimum; Max, maximum.

Results

Basic results

In this section, we examine whether firm-specific variables explain the debt–equity choice. Next, we present event study results that measure the significance of the announcement of debt and equity issues on the listed firm. Table 2 reports the summary of descriptive statistics. Table 3 reports the pairwise correlations of all the variables used. The correlation coefficients are not large enough to indicate that there is a problem of multicollinearity. The different signs of the relationship between managerial confidence, size and tangibility in the correlation matrix and regression analysis indicate that suppressor effects do exist. This situation is described by Falk and Miller (1992) when the correlation matrix and regression model exhibit two different relationship signs between variables.[5] Furthermore, the authors explain that in a situation where suppressor effects are present, the correct sign interpretation is that given by the regression coefficient.

Empirical results

In this section, we report the regression and event study results. The regression results are presented in Table 4. In line with our expectations, we find that managerial confidence influences the likelihood of issuing debt relative to equity. The coefficient on the confidence variable is statistically significant at the 5% level, implying that a percentage increase

5.According to Falk and Miller (1992), there are three possible reasons for this suppressing effect: (1) The two variables' relationship is very close to zero, thus the sign reflects random variations around zero. (2) There could be one or more variables in the model that contain the same information and therefore are redundant. (3) Suppressing occurs due to an important explanatory variable necessary to understand the 'true' relationship of the variables, while suppressing the effect of another.

TABLE 3: Correlation matrix.

Variable	Confidence	Size	Profitability	Leverage	Tangibility	MTB	Financial
Confidence	1.000	-	-	-	-	-	-
Size	-0.4038	1.0000	-	-	-	-	-
Profitability	0.0599	0.0009	1.0000	-	-	-	-
Leverage	-0.1112	0.3949	-0.1551	1.0000	-	-	-
Tangibility	-0.1120	-0.0684	0.0339	-0.0321	1.0000	-	-
MTB	-0.0194	0.0095	0.2736	0.1894	-0.1082	1.0000	-
Financial	0.0605	0.4515	-0.0457	0.3716	-0.3738	-0.0311	1.0000

MTB, market-to-book.

TABLE 4: Regression results for the factors influencing the likelihood of issuing debt.

Variable	(1)	(2)	(3)	(4)	(5)	(6)
Confidence	0.0474*** (0.006)	-	-	-	-	-
Conf * Size	-	0.0102** (0.022)	-	-	-	-
Conf * Lev	-	-	0.0696*** (0.003)	-	-	-
Conf * Prof	-	-	-	0.2649 (0.117)	-	-
Conf * Tang	-	-	-	-	0.0542** (0.031)	-
Conf * MTB	-	-	-	-	-	0.0194*** (0.002)
Size	1.7438*** (0.000)	1.6429*** (0.000)	1.7242*** (0.000)	1.6550*** (0.000)	1.6100*** (0.000)	1.6280*** (0.000)
Leverage	-0.5872 (0.416)	-0.5302 (0.418)	-0.8991 (0.130)	-0.4886 (0.463)	-0.6841 (0.304)	-0.4913 (0.452)
Profitability	0.9619 (0.595)	1.0333 (0.581)	1.1363 (0.552)	0.3145 (0.863)	1.0235 (0.580)	1.1451 (0.517)
Tangibility	1.7368*** (0.007)	1.6517*** (0.007)	1.7410*** (0.004)	1.7415** (0.016)	1.3654** (0.048)	1.7584*** (0.009)
MTB	-0.4309*** (0.009)	-0.4489*** (0.000)	-0.4425*** (0.001)	-0.4626*** (0.001)	-0.4247*** (0.001)	-0.5662*** (0.001)
Financial	-0.9656 (0.141)	-0.9799 (0.171)	-0.8778 (0.177)	-0.8700 (0.223)	-0.8112 0.283	-0.8499 (0.174)
N	1072	1072	1072	1072	1072	1072
Wald Chi2	26.65	43.14	43.73	32.49	36.84	36.12
Prob > Chi2	0.0004	0.0000	0.0000	0.0000	0.0000	0.0000
Pseudo R2	0.2683	0.2652	0.2660	0.2513	0.2532	0.2583

MTB, market to book.
, * signify that a variable is statistically significant at the 5%, and 1% level, respectively.
Standard errors are in parentheses.

in the managerial shareholding results in a 4.74% likelihood of a debt issuance. This finding is consistent with hypothesis 1, and the extant literature that documents evidence that confident managers are more likely to issue debt when faced with a financing decision (See Barclay & Smith 2005; Barros & Da Silveira 2007; Hackbarth 2004; Oliver 2005). In an unreported analysis, we perform additional tests to ensure that our results are robust across other alternative measures of managerial optimism. Following Barclay and Smith (2005), we identify observations of firm years in which earnings are lower than the following year, and assign these observations a value of one, and zero otherwise. We do the same for the return on assets and return on equity. None of these coefficients are statistically significant.[6] Thus, we conclude that increases in the share ownership by insiders, or managerial optimism, is a significant driver of the likelihood of debt issues.

To probe the channels through which managerial confidence influences the likelihood of debt issues, we interact the firm-specific variables with our confidence proxy and report the results in models 2–6. In line with expectations, we show that confident managers in larger and asset-intensive firms are significantly more likely to issue debt. This finding reinforces the notion that firm size and asset tangibility bolster the confidence in managers to issue more debt. In contrast to our expectations, managers in firms with high market-to-book (MTB) ratios (overvalued firms) are significantly more likely to issue debt. Our intuition is that concerns about contracting costs, associated with intangible growth opportunities, do not deter confident managers in their decisions to issue debt. Likewise, the positive coefficient on the interaction between leverage and our confidence variable suggests that concerns about financial distress or debt-overhang issues do not deter confident managers from issuing debt. These findings underscore the notion that confident managers underestimate the risk of potential bankruptcy associated with debt issues (See Azouzi & Jarboui 2012; Rihab & Lotfi 2016).

The signs on the coefficients of the control variables are, by and large, consistent with the theoretical predictions of

6.The results are available upon request.

capital structure. In line with the trade-off theory, size and asset tangibility are positively associated with the likelihood of a debt issue. This is because these variables serve as reverse proxies for financial distress and bankruptcy (See De jong, Kabir & Nguyen 2008). Conversely, the coefficient on the MTB ratio is negative and statistically significant. This finding is in line with the market- timing theory suggesting that managers tend to take advantage of the market mispricing and will issue equity when their share is overvalued. Thus, we conclude that, trade-off and market-timing considerations appear to influence the capital structure decisions for our set of firms.

Having established the factors that drive debt issuance on the JSE, we further examine the financial implications of the equity and debt announcements. In the next section we explore an event study approach to achieving this objective.

Event study results

In this section, we discuss the event study results for equity and bond issues. Figure 1 shows that equity issues generally experience a decline in returns over the 20 days prior to the event and 10 days after the announcement. The returns over the 41-day period have been mostly below 0% with a huge decline in about 2 days before the announcement. The unexpected spike in the returns immediately after the announcement date is somewhat surprising as one would expect a further decline in the share price immediately after the equity announcement. However, the overall trend in the graph, shows that there are negative CAARs indicating a negative market reaction associated with equity announcements.

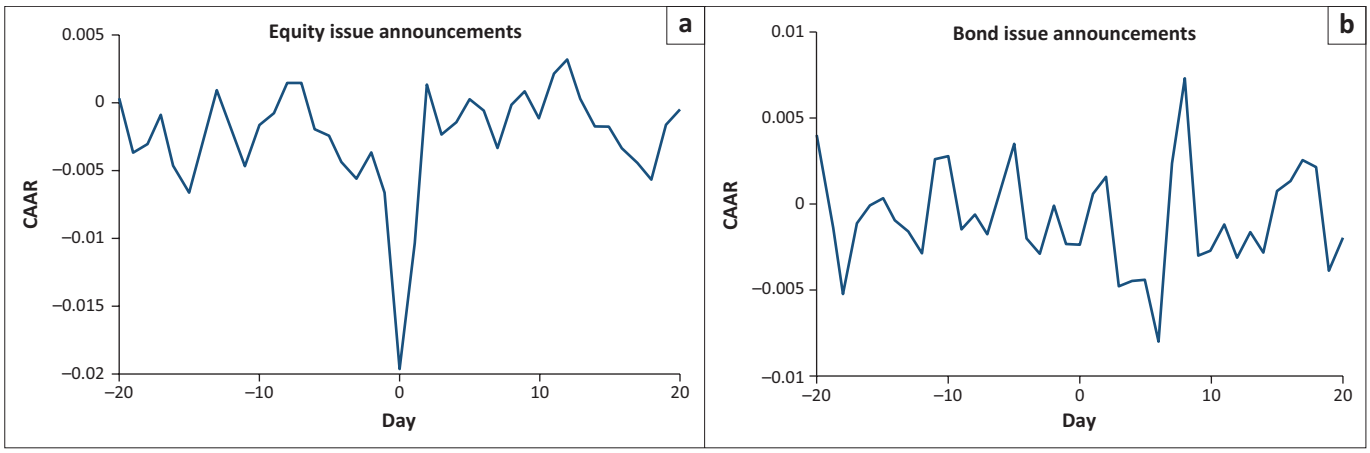
Conversely, the CAARs for bond announcements are relatively close to zero for the 20 days before the announcement. Additionally, we observe an increase in the CAARs between day 0 and +3 reflecting the positive news associated with bond announcements. However, from day +3 to around day +6, the returns begin to decline drastically. This reversal can be attributed to the Efficient Market Hypothesis that proposes that there is an almost instantaneous adjustment to the release of firm-specific information. From day +6 onwards, there is a spike in the returns reaching almost 1%, followed by a decline.

The results in Panels A and B of Table 1 report CAARs for equity and bond issues respectively. For equity announcements, CAAR1, CAAR4 and CAAR5 are negative and statistically significant at the 1% level. However, CAAR2 and CAAR3 are negative but not statistically significant. Overall, the results indicate that there is a negative and significant share price reaction to equity issue announcements. These results are consistent with hypothesis 2, and the extant literature on share price reactions to equity issue announcements (See Bhana 1998; Masulis 1980; Miller & Rock 1985).

Contrary to our expectations, the results in Panel B show that, on average, the returns are consistently below zero for all event windows. However, except for CAAR5, the abnormal returns are not statistically significant across all event windows. Our findings are inconsistent with hypothesis 3 and the literature that argues that debt issues are associated with a positive share price reaction (See Cornett & Travlos 1989; Flammer 2021; Masulis 1983; Smith 1986). In contrast, our finding is largely consistent with the studies that show that debt issue announcements do not have a material effect on the share price (See Mikkelson & Partch 1986; Eckbo 1986). The plausible explanation to this finding is that, in contrast to equity offerings, debt issues have lower information costs (See Myers & Majluf 1984), and thus the announcement effect of a debt offering on share prices may be muted.

Conclusion

The purpose of this article is twofold: firstly, to explore the behavioural financial implications on capital structure decisions, and secondly, to examine the announcement effects of equity and bond issues on share prices. We utilise panel data and event study techniques to achieve the former and latter objectives, respectively. In line with the signalling hypothesis, we find that confident managers are significantly



CAAR, cumulative average abnormal returns.

FIGURE 1: Cumulative average abnormal returns for equity and bond announcements (a–b).

more likely to issue debt. We further show that the announcement of equity issues generates negative and statistically significant CAARs, while the financial implications of bond issue announcements are by and large muted. Our results provide useful insights for future research. For instance, it would be worthwhile to expand the sample to explore other African markets with varying levels of information asymmetry and institutional development.

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Competing interests

The author(s) declare that they have no financial or personal relationship(s) that may have inappropriately influenced them in writing this article.

Authors' contributions

L.M. and C.C. contributed both to the design, methods and implementation of the research, to the analysis of the results and the writing of the manuscript.

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Data availability

The data that support the findings of this study are publicly available from the IRESS Financial Database, Bloomberg Inc. and EquityRT.

Disclaimer

The views and opinions expressed in the article are those of the authors and do not necessarily reflect the official policy or position of any affiliated agency of the authors.

References

Abor, J. & Biekpe, N., 2005, 'What determines the capital structure of listed firms in Ghana?', *African Finance Journal* 7(1), 37–48.

Azouzi, M.A. & Jarboui, A., 2012, 'CEO emotional bias and capital structure choice, Bayesian Network Method', *Business Excellence and Management* 2(2), 47–70. https://doi.org/10.22495/cocv9i2c2art1

Baker, M. & Wurgler, J., 2002, 'Market timing and capital structure', *The Journal of Finance* 57(1), 1–32. https://doi.org/10.1111/1540-6261.00414

Barclay, M.J. & Smith, C.W., 1999, 'The capital structure puzzle: Another look at the evidence', *Journal of Applied Corporate Finance* 12(1), 8–20. https://doi.org/10.1111/j.1745-6622.1999.tb00655.x

Barclay, M.J. & Smith, C.W., 2005, 'The capital structure puzzle: The evidence revisited', *Journal of Applied Corporate Finance* 17(1), 8–17. https://doi.org/10.1111/j.1745-6622.2005.012_2.x

Barros, L.A.B.D.C. & Di Miceli da Silveira, A., 2007, 'Overconfidence, managerial optimism and the determinants of capital structure', https://doi.org/10.2139/ssrn.953273

Besley, S. & Brigham, E.F., 2003, *Principles of finance*, Thomson Learning. Inc., Chicago, IL.

Bhana, N., 1998, 'Share price reaction to announcements of equity financing by companies listed on the Johannesburg Stock Exchange', *Investment Analysts Journal* 27(48), 33–42. https://doi.org/10.1080/10293523.1998.11082389

Bhattacharya, S., 1979, 'Imperfect information, dividend policy, and "the bird in the hand" fallacy', *The Bell Journal of Economics* 10(1), 259–270. https://doi.org/10.2307/3003330

Chen, J.J., 2004, 'Determinants of capital structure of Chinese-listed companies', *Journal of Business Research* 57(12), 1341–1351. https://doi.org/10.1016/S0148-2963(03)00070-5

Chipeta, C., 2016, 'Post IPO dynamics of capital structure on the Johannesburg Stock Exchange', *South African Journal of Business Management* 47(2), 23–31. https://doi.org/10.4102/sajbm.v47i2.57

Chipeta, C. & Deressa, C., 2016, 'Firm and country specific determinants of capital structure in Sub-Saharan Africa', *International Journal of Emerging Markets* 11(4), 649–673. https://doi.org/10.1108/IJoEM-04-2015-0082

Cornett, M.M. & Travlos, N.G., 1989, 'Information effects associated with debt-for-equity and equity-for-debt exchange offers', *The Journal of Finance* 44(2), 451–468. https://doi.org/10.1111/j.1540-6261.1989.tb05065.x

Covitz, D. & Harrison, P., 1999, *The timing of debt and rating migration: Theory and evidence*, Federal Reserve Board, Washington, DC.

De Bondt, W.F. & Thaler, R.H., 1987, 'Further evidence on investor overreaction and stock market seasonality', *The Journal of Finance* 42(3), 557–581. https://doi.org/10.1111/j.1540-6261.1987.tb04569.x

De Jong, A., Kabir, R. & Nguyen, T.T., 2008, 'Capital structure around the world: The roles of firm-and country-specific determinants', *Journal of Banking & Finance* 32(9), 1954–1969. https://doi.org/10.1016/j.jbankfin.2007.12.034

Eckbo, B.E., 1986, 'Valuation effects of corporate debt offerings', *Journal of Financial Economics* 15(1–2), 119–151. https://doi.org/10.1016/0304-405X(86)90052-8

Ehrhardt, M. & Brigham, E., 2003, *Corporate finance: A focused approach*, India edn., Cengage India Learning, Boston, MA.

Esghaier, R., 2017, 'Capital structure choices and behavioural biases: An application to a panel of US industrial companies', *International Journal of Economics and Financial Issues* 7(4), 608–622.

Falk, R.F. & Miller, N.B., 1992, *A primer for soft modelling*, University of Akron Press, Akron, OH.

Flammer, C., 2021, 'Corporate green bonds', *Journal of Financial Economics* 142(2), 499–516. https://doi.org/10.1016/j.jfineco.2021.01.010

Galai, D. & Masulis, R.W., 1976, 'The option pricing model and the risk factor of stock', *Journal of Financial Economics* 3(1–2), 53–81. https://doi.org/10.1016/0304-405X(76)90020-9

Gwatidzo, T. & Ojah, K., 2009, 'Corporate capital structure determinants: Evidence for five African countries', *African Finance Journal* 11(1), 1–23.

Gwatidzo, T. & Ojah, K., 2014, 'Firms' debt choice in Africa: Are institutional infrastructure and non-traditional determinants important?', *International Review of Financial Analysis* 31, 152–166. https://doi.org/10.1016/j.irfa.2013.11.005

Hackbarth, D., 2004, *Determinants of corporate borrowing: A behavioural perspective*, Working Paper, Indiana University.

Hackbarth, D., 2008, 'Managerial traits and capital structure decisions', *Journal of Financial and Quantitative Analysis* 43(4), 843–881. https://doi.org/10.1017/S002210900001437X

Hasani Alghar, M. & Rahimian, N., 2018, 'The effect of managerial overconfidence on debt maturity structure in listed companies in Tehran stock exchange', *Journal of Asset Management and Financing* 6(1), 89–106.

Howe, J.S. & Morillon, T.G., 2020, 'Do mergers and acquisitions affect information asymmetry in the banking sector?', *Managerial Finance* 46(12), 1521–1547. https://doi.org/10.1108/MF-03-2020-0127

Huang, R. & Ritter, J.R., 2005, 'Testing the market timing theory of capital structure', *Journal of Financial and Quantitative Analysis* 1(2), 221–246.

Jensen, M.C. & Meckling, W.H., 1976, 'Theory of the firm: Managerial behaviour, agency costs and ownership structure', *Journal of Financial Economics* 3(4), 305–360. https://doi.org/10.1016/0304-405X(76)90026-X

Kayhan, A. & Titman, S., 2007, 'Firms' histories and their capital structures', *Journal of Financial Economics* 83(1), 1–32. https://doi.org/10.1016/j.jfineco.2005.10.007

Kim, W., Ko, Y. & Wang, S.F., 2019, 'Debt restructuring through equity issues', *Journal of Banking & Finance* 106, 341–356. https://doi.org/10.1016/j.jbankfin.2019.07.002

Kumar, S. & Goyal, N., 2015, 'Behavioural biases in investment decision making – A systematic literature review', *Qualitative Research in Financial Markets* 7(1), 88–108. https://doi.org/10.1108/QRFM-07-2014-0022

Leland, H.E. & Pyle, D.H., 1977, 'Informational asymmetries, financial structure, and financial intermediation', *The Journal of Finance* 32(2), 371–387. https://doi.org/10.2307/2326770

Lemmon, M.L., Roberts, M.R. & Zender, J.F., 2005, 'Back to the beginning: Persistence and the cross-section of corporate capital structure', working Paper, published in 2008 in *The Journal of Finance*, 63(4), 1575– 608.

Lopatta, K., Buchholz, F. & Kaspereit, T., 2016, 'Asymmetric information and corporate social responsibility', *Business & Society* 55(3), 458–488. https://doi.org/10.1177/0007650315575488

Machokoto, M., Areneke, G. & Ibrahim, B.M., 2020, 'Rising corporate debt and value relevance of supply-side factors in South Africa', *Journal of Business Research* 109, 26–37. https://doi.org/10.1016/j.jbusres.2019.11.039

Malmendier, U. & Tate, G., 2008, 'Who makes acquisitions? CEO overconfidence and the market's reaction', *Journal of Financial Economics* 89(1), 20–43. https://doi.org/10.1016/j.jfineco.2007.07.002

Malmendier, U. & Tate, G., 2015, 'Behavioral CEOs: The role of managerial overconfidence', *Journal of Economic Perspectives* 29(4), 37–60. https://doi.org/10.1257/jep.29.4.37

Masulis, R.W., 1980, 'The effects of capital structure change on security prices: A study of exchange offers', *Journal of Financial Economics* 8(2), 139–178. https://doi.org/10.1016/0304-405X(80)90015-X

Masulis, R.W., 1983, 'The impact of capital structure change on firm value: Some estimates', *The Journal of Finance* 38(1), 107–126. https://doi.org/10.1111/j.1540-6261.1983.tb03629.x

Mikkelson, W.H. & Partch, M.M., 1986, 'Valuation effects of security offerings and the issuance process', *Journal of Financial Economics* 15(1–2), 31–60. https://doi.org/10.1016/0304-405X(86)90049-8

Miller, M.H. & Rock, K., 1985, 'Dividend policy under asymmetric information', *The Journal of Finance* 40(4), 1031–1051. https://doi.org/10.1111/j.1540-6261.1985.tb02362.x

Modigliani, F. & Miller, M.H., 1958, 'The cost of capital, corporation finance and the theory of investment', *The American Economic Review* 48(3), 261–297.

Myers, S.C., 1977, 'Determinants of corporate borrowing', *Journal of Financial Economics* 5(2), 147–175. https://doi.org/10.1016/0304-405X(77)90015-0

Myers, S.C., 1984, *Capital structure puzzle*, National Bureau of Economic Research.

Myers, S.C. & Majluf, N.S., 1984, 'Corporate financing and investment decisions when firms have information that investors do not have', *Journal of Financial Economics* 13(2), 187–221. https://doi.org/10.1016/0304-405X(84)90023-0

Nenu, E.A., Vintilă, G. & Gherghina, Ş.C., 2018, 'The impact of capital structure on risk and firm performance: Empirical evidence for the Bucharest Stock Exchange listed companies', *International Journal of Financial Studies* 6(2), 41. https://doi.org/10.3390/ijfs6020041

Oliver, B., 2005, *The impact of managerial confidence on capital structure*, Australian National University, Working Paper, viewed 19 September 2021 from http://ssrn.com/abstract, 791924.

Onchong'a, E.A., Muturi, W. & Atambo, W., 2016, 'Effects of debt financing on businesses firms' financial performance', *International Journal of Social Science and Information Technology* 2(5), 723–737.

Ramjee, A. & Gwatidzo, T., 2012, 'Dynamics in capital structure determinants in South Africa', *Meditari Accountancy Research* 20(1), 52–67. https://doi.org/10.1108/10222521211234228

Rihab, B.A. & Lotfi, B.J., 2016, 'Managerial overconfidence and debt decisions', *Journal of Modern Accounting and Auditing* 12(4), 225–241. https://doi.org/10.17265/1548-6583/2016.04.004

Ross, S.A., 1977, 'The determination of financial structure: The incentive-signalling approach', *The Bell Journal of Economics* 8(1), 23–40. https://doi.org/10.2307/3003485

Seetharam, Y. & Da Cunha, J.A., 2018, 'The short-run performance of equity issues in South Africa: Bad timing or a last resort?', *Journal of Economic and Financial Sciences* 11(1), 1–10. https://doi.org/10.4102/jef.v11i1.179

Shefrin, H., 2001, 'Behavioural corporate finance', *Journal of Applied Corporate Finance* 14(3), 113–126. https://doi.org/10.1111/j.1745-6622.2001.tb00443.x

Smith Jr, C.W., 1986, 'Investment banking and the capital acquisition process', *Journal of Financial Economics* 15(1–2), 3–29. https://doi.org/10.1016/0304-405X(86)90048-6

Soufani, K., Tse, T., Cole, O. & Aboulamer, A., 2012, 'Do behavioural biases explain capital structure decisions', in *European Financial Management Association 2012 Annual Meetings*, June (Vol. 27, p. 30).

SSRN: https://ssrn.com/abstract=953273 or http://dx.doi.org/10.2139/ssrn.953273

Tan, K.J.K., 2017, 'Why do overconfident REIT CEOs issue more debt? Mechanisms and value implications', *Abacus* 53(3), 319–348. https://doi.org/10.1111/abac.12111

Wolmarans, H. & Sartorius, K., 2009, 'Corporate social responsibility: The financial impact of Black Economic Empowerment transactions in South Africa', *South African Journal of Economic and Management Sciences* 12(2), 180–193. https://doi.org/10.4102/sajems.v12i2.275

World Development Indicators, 2022, viewed 16 September 2022, from https://databank.worldbank.org/source/world-development-indicators.

Appendix starts on the next page→

Appendix 1

TABLE A1: Definition of variables.

Variables	Definition and measurement
Dependent variables	
Debt	This is a binary that is assigned 1 when the firm issues debt, and zero otherwise.
Independent variables	
Size	The size of the firm is measured as the natural logarithm of total assets.
Profitability	Profitability is measured as earnings before interest and taxes (EBIT) divided by total assets.
Confidence	Confidence captures managerial ownership of equity, and is measured as the percentage of the equity owned by directors to total outstanding shares.
Tangibility	Asset tangibility is measured as a ratio of fixed assets to total assets.
MTB	The market-to-book ratio is calculated as the market price per share, divided by the book value per share.
Leverage	Leverage is measured at the ratio of total-debt-to-total-assets.

MTB, market to book.