

# International financial reporting standards and foreign ownership in South African companies

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## ABSTRACT

Previous literature suggests that the adoption of International Financial Reporting Standards (IFRS) can facilitate cross-border capital flows, as it results in an increase in market liquidity and comparability benefits. Using foreign ownership levels in South African listed companies during the period 2003 to 2007, we test whether this association holds in a South African context when the top 40 South African companies mandatorily adopted IFRS. The results indicate that the adoption of IFRS did not have a significant positive association with foreign ownership levels during the sample period. We attribute the result to the harmonisation project undertaken in South Africa to align local accounting standards (SA-GAAP) with the IFRS before the mandatory adoption thereof.

**Key words:** foreign investment, cross-border investment, IFRS adoption benefits, mandatory adoption

## Introduction

One of the benefits of adopting IFRS is that it should lead to an increase in cross-border investment (European Community Regulation, 1606/2002; Covrig, Lau & Ng 2006; Yu 2010; Covrig, Defond & Hung 2007). These studies suggest that a country like South Africa could experience an inflow of foreign funds into the country after the adoption of IFRS. In this study, our objective was to test whether this is true in the South African context. In pursuing this objective, we documented the change in foreign ownership in South African companies over a five-year period and evaluated whether the mandatory adoption of IFRS by large South African companies is associated with an increase in foreign ownership.

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This study adds to the literature on the benefits of adopting IFRS, and more specifically, complements the study by Covrig et al. (2007) in which they evaluated the effect of voluntary adoption of IFRS on companies' ability to attract foreign capital. Covrig et al. (2007) conducted a cross-country study and included companies from 29 countries outside of the United States of America and Canada in their sample. Including only companies that voluntarily adopted IFRS could lead to a self-selection bias, as these companies adopted IFRS because they believed that they would benefit from it. We eliminated this potential problem, as our sample only included companies that mandatorily adopted IFRS in 2005. This study furthermore complements the study by Florou and Pope (2012), which suggests that the mandatory adoption of IFRS had an effect on the asset allocation decisions (i.e. investment decisions) of institutional investors. In order to obtain comprehensive results, our study evaluated total foreign ownership levels without differentiating between institutional and private investors.

The South African context is unique in that IFRS was significantly similar to the local accounting standards, the South African statements of Generally Accepted Accounting Practice (SA-GAAP) (SAICA 2003, Circular 5/2003), used before the adoption of IFRS. This unique environment provided us with the opportunity to indirectly evaluate perceptions of the foreign investors of IFRS, as the adoption did not have a significant impact on the accounting quality of companies' results. We argue that any significant association between foreign ownership and the adoption of IFRS in South Africa could thus be attributed to foreign investors' perception of IFRS rather than an actual increase in accounting quality.

In order to achieve the objective of our study, we employed a regression analysis of pooled data from a sample of 35 companies listed on the Johannesburg Stock Exchange (JSE) (the top 40 listed companies, five of which were eliminated for lack of data) over the period 2003 to 2007. Our full sample consisted of 175 observations. The empirical results from this analysis suggest that the mandatory adoption of IFRS did not have a significant association with foreign ownership levels for these South African companies. This could have been the result of the harmonisation process undertaken in South Africa to align their local accounting standards, SA-GAAP, with the IFRS before the mandatory adoption thereof. The harmonisation process resulted in fewer differences between SA-GAAP and IFRS before adoption (SAICA 2003), which ultimately led to no significant benefits gained in terms of an increase in foreign ownership since the adoption of IFRS. This is consistent with Leuz and Verrecchia (2000) and Daske, Hail, Leuz and Verdi (2008), who indicate that the benefits of adopting IFRS might be less significant in countries where there are fewer differences between the domestic accounting standards and IFRS. This could be

due to the information environment already being rich before the adoption of IFRS. Thus, an increase in disclosure levels would not necessarily lead to an increase in transparency in financial information for investors. This could also mean that the market was already highly liquid before the adoption of IFRS.

The rest of the paper is structured as follows: literature review and hypothesis development, data and research design, results, and conclusion and suggestions for future research.

## Literature review and hypothesis development

### South African background

Since 1993, South Africa has been aligning SA-GAAP with international reporting standards (Prather-Kinsey 2006). This harmonisation process was completed in June 2004, and the Accounting Practices Board (APB) then decided to issue the International Financial Reporting Standards (IFRS) as SA-GAAP without any amendments (SAICA 2004).

This harmonisation process ensured that there were only a few minor differences between SA-GAAP and IFRS. As noted in Circular 5/2003 (SAICA 2003), these differences were mainly editorial and related to implementation dates and additional disclosure requirements. Subsequent to the finalisation of this harmonisation project, South African regulators decided to use a dual numbering system comprising either the International Accounting Standard (IAS) or IFRS number, followed by the relevant South African AC number in brackets. This was done due to the fact that the SA-GAAP was then the exact replica of the relevant IAS or IFRS (SAICA 2004).

The JSE, South Africa's only stock exchange, revised its listing requirements during this transition period and introduced the requirement that all companies listed on the JSE should apply IFRS for their financial years commencing on or after 1 January 2005 (Meyer, Stiglingh & Venter 2006). The reason for this is clearly stated in Circular 7/2004 (SAICA 2004) and was to eliminate alternatives, redundancies and conflicts within existing standards in order to improve the quality of the reported financial data.

The JSE is approximately 100 times larger than the Nigerian equity market, the second biggest in Africa (World Economic Forum 2008), which indicates that the JSE is vital in giving investors the opportunity to invest in South African and African companies, as well as providing these companies with the necessary capital for their business needs.

South African companies benefited from the harmonisation process in that no major transitions resulted from the adoption of IFRS in 2005. As most companies would have experienced a seamless transition from SA-GAAP to IFRS over a period of time, it would have had few cost implications for South African companies relative to other companies around the world that had to change over to the new standards in a relatively short period of time.

### The benefits of adopting IFRS

No academic research that relates specifically to our research question is available in South Africa, and thus little is known of the impact that the mandatory adoption of IFRS had on the country. There is, however, extensive literature available from around the world regarding the adoption of IFRS, either voluntarily or mandatorily. Following previous research, the net benefits perceived from the adoption of IFRS are mainly due to a decrease in companies' cost of capital (Daske et al. 2008; Li 2010; Lambert, Leuz & Verrecchia 2012) and a reduction in the cost of comparison of different companies from different countries (Hail, Leuz & Wysocki 2010a, 2010b; Barth, Landsman, Lang & Williams 2012). These studies suggest that the benefits would facilitate cross-border investment (i.e. foreign ownership in South African companies in the context of this study).

Armstrong, Barth, Jagolinzer and Riedl (2010) conducted an event study on how the European stock market reacted to events that they identified and assessed to increase or decrease the likelihood of adopting IFRS in Europe. The authors investigated three-day market-adjusted returns, around 16 events during the period 2002 to 2005, that could have impacted the likelihood of adoption. Their study only included countries that formed part of the European Union (EU) during the sample period. The results from this study suggest that the stock market reacted positively/ (negatively) during the three-day period for an event that was assessed to increase/ (decrease) the likelihood of adopting IFRS. As the authors only tested overall investor perceptions of adopting IFRS, they did not distinguish between the specific reasons why the stock market reacted positively or negatively to these events. They did indicate that the positive reaction might be due to the notion that there would be a lowering of information asymmetries that would reduce the informational risk, resulting in a decrease in the cost of capital of companies. Joos and Leung (2013) came to the same conclusion as Armstrong et al. (2010) for 15 events identified in the United States of America relating to IFRS adoption.

Florou and Pope (2012) suggest in their study that as the quality of accounting and financial reporting increases, the demand for equities also increases. They

conducted their research on institutional investors around the world and concluded that the mandatory adoption of IFRS had an effect on the asset allocation decisions of these investors. This is consistent with previous studies by Barth, Landsman and Lang (2008) and Barth et al. (2012), who provide evidence of an increase in accounting quality after the adoption of IFRS. In a similar vein, DeFond, Hu, Hung and Li (2011) investigated the effect of mandatory IFRS adoption on foreign mutual fund ownership levels in the EU during 2005. They concluded that using the same accounting standards would lead to cross-border investment by mutual fund holdings.

Beneish, Miller and Yohn (2012) examined the impact of mandatory IFRS adoption on foreign ownership flows primarily in EU countries. Their results suggest that countries adopting IFRS attracted significantly more debt investment than equity investment. The authors attributed the absence of an increase in foreign equity investment to the possibility that the EU countries are in close proximity, regularly participate in trading and have a common currency. Even after controlling for this possibility by including control countries (non-EU countries) in their sample, the tests still yielded the same results. These factors might not be significant in South Africa, as the country does not share a currency with any other country in the world and is not part of an organisation of the magnitude of the EU. Another possible reason for their results might be that the countries included in their sample are more driven by debt investment than by equity investment. In Table 1 of their study, they provide descriptive statistics about the market capitalisation of the countries' equity and debt markets in billions of United States Dollars (USD). They included South Africa in their sample as one of the mandatory IFRS adopter countries, and it is interesting to note that, excluding the control countries, South Africa is the only country included in the sample that has an equity market capitalisation greater than its debt market capitalisation. This was as at the end of 2003, which was also the base year for our study. It is also interesting to note that the mean debt market capitalisation for the EU countries is approximately three times more than their equity market capitalisation. This could indicate that companies included in the sample are mostly driven by debt investment, probably due to the fact that investors tend to focus on the debt market, or that companies promote their debt instruments more than their equity instruments. It was also noted that for most control countries, their debt market capitalisation exceeded their equity market capitalisation, which could explain why there was no significant change in the results after the control companies were added to the sample. This could indicate that foreign investors would tend to focus their resources on the South African equity market, as it is more prominent than the debt market given the South African trading environment.

Lin (2012) performed a study using data from Kenya, also a developing economy like South Africa, which also indicated that the mandatory adoption of IFRS would lead to an increase in foreign ownership levels. The results of the study highlighted the role of IFRS compliance in addition to that of IFRS adoption. The results were consistent with those of Gordon, Loeb and Zhu (2012), who also tested the effects of IFRS adoption on foreign direct investment; it is interesting to note that in their study, Gordon et al. (2012) included 124 countries for the period 1996 to 2009 and indicated that developing economies were more likely to have experienced significant foreign direct investment inflows than developed economies.

Yu (2010) suggests that the mandatory adoption of IFRS promoted cross-border capital investments for his sample of companies for 28 countries across the world. This was the result of increasing comparability between companies' financial information and reducing processing costs. He demonstrated that cross-border investment had grown as a result of the net benefits gained from adopting IFRS, whether it was due to an increase in accounting quality (Armstrong et al. 2010; Barth et al. 2008) or the fact that investors were more familiar with the information presented (Bradshaw, Bushee & Miller 2004; Aggarwal, Klapper & Wysocki 2005).

In summary, previous research indicates that the benefits that can be gained by countries (and companies) from adopting IFRS are integrated as market liquidity, comparability and accounting quality benefits, which can lead to an increase in foreign ownership.

## Hypothesis development

A vast amount of literature indicates and highlights the net benefits gained from the adoption of IFRS, irrespective of whether it is voluntary or mandatory (Leuz & Verrecchia 2000; Armstrong et al. 2010; Daske et al. 2008; Barth et al. 2012). Daske et al. (2008) suggest that countries with noticeable differences between their domestic accounting standards and IFRS would benefit more from the adoption of IFRS than countries where there are fewer differences between the different accounting standards. The South African context created a testing environment where the net benefits gained (i.e. an increase in foreign ownership), due to increased accounting quality from the adoption of IFRS, could be expected to be less significant, or not significant, as SA-GAAP was closely aligned with IFRS before the mandatory adoption thereof. There might, however, be global comparability benefits for South African companies, as more companies around the world will report their financial results in terms of IFRS, thus making it easier for investors to compare South African companies with other companies around the world.

If South African companies experienced significant benefits from the mandatory adoption of IFRS, it would mainly be due to comparability benefits, as noted by Barth et al. (2012), Hail et al. (2010a, 2010b) and Bradshaw et al. (2004), which can facilitate cross-border capital flows. Furthermore, the harmonisation process undertaken in South Africa to align the accounting standards before the mandatory adoption of IFRS created the possibility that any increase in benefits gained from accounting quality was the result of investors' perceptions of IFRS and not the actual increase in accounting quality, since there were no notable differences between IFRS and SA-GAAP.

Taking all the literature into account and applying it to the South African environment, we still expected South African companies to experience an increase in comparability benefits as a result of more companies around the world applying the same accounting standards. This in turn would make it less costly and easier for investors to compare the different companies with one another, irrespective of their country of incorporation, and gradually become more familiar with the information presented to them (Bradshaw et al. 2004; Aggarwal et al. 2005; Hail et al. 2010a, 2010b). This increase in benefits would not be significantly enhanced by the real quality of the accounting information resulting from the harmonisation process, as the accounting quality would be the same. The notion that investors might perceive IFRS to be of better quality than SA-GAAP might add to the expectation of an increase in cross-border capital flows to South African companies.

Taking all of the above factors into account, our formal hypothesis was as follows:

H1: The mandatory adoption of IFRS by large South African companies is positively and significantly associated with an increase in foreign ownership in these companies.

## Data and research design

### Data

In order to test our hypothesis, we selected companies included in the JSE main listing board. It was noted that the Top 40 index on the JSE represents the largest 40 companies by market capitalisation at a given point in time, and that these companies account for the majority of the trading that takes place on the JSE (SATRIX 2011a). The benefit of focusing our tests on these companies was that it enabled us to improve control with respect to the visibility of companies (smaller companies would be less visible to foreign investors).

The basket constituents of the SATRIX 40 portfolio were not available at the start of our sample period (2003 to 2007); the earliest data available were for March 2004 (SATRIX 2011b). We included the companies on the SATRIX 40 list as of this date in our sample, representing the majority of the JSE's trading before the mandatory adoption of IFRS. However, we noted that the Top 40 constituents might change over time as a result of, for example, delisting and an increase/decrease in the market capitalisation. This resulted in the companies included in the Top 40 list not always being the same. However, these companies were not removed from the sample, given that they were listed on the JSE main board. It is important to note that 32 of the original Top 40 companies on the March 2004 list were still included in the December 2007 list (SATRIX 2011b). Of these companies, two merged during this period, while another four companies were excluded from our sample due to delisting and thus not meeting the Top 40 criteria. This left us with a final sample of 35 companies, which represented the majority of the biggest companies listed on the JSE. This also indicates that the listing of the Top 40 constituents remained relatively constant over the testing period, as 32 of the final 35 companies were included in the Top 40 index throughout the period 2004 to 2007.

As we conducted the regression analysis for the period 2003 to 2007, it provided us with data from two years before and after the mandatory adoption of IFRS. Included in this time period was 2005, the year in which some companies would have adopted IFRS if they had a 31 December financial year end. This resulted from the JSE requirements stating that companies should apply IFRS for their financial years commencing on or after 1 January 2005. All data were obtained from the McGregor BFA database and, where necessary, from the respective company's website.

## Research design

Our first step was to evaluate whether the increase in foreign ownership in our sample companies from the pre-IFRS adoption period to the post-IFRS adoption period was statistically significant. Our second step, following Covrig et al. (2006), was to run a regression model to evaluate whether the mandatory adoption of IFRS is associated with an increase in foreign ownership after controlling for other variables, based on previous research, which could also have had an effect on foreign ownership. The regression model is as follows:

$$\text{Foreign ownership} = \alpha_0 + \alpha_1 \text{Mandatory} + \alpha_2 \text{Forsa} + \alpha_3 \text{Ana} + \alpha_4 \text{Clist} + \alpha_5 \text{Div} + \alpha_6 \text{Btm} + \alpha_7 \text{Lev} + \alpha_8 \text{Eap} + \alpha_9 \text{Roe} + \alpha_{10} \text{ShRet} + \alpha_{11} \text{Ind} + \alpha \text{Yr}$$



Following Griffin, Nardari and Stultz (2004), we measured the level of foreign ownership as the amount of shares held by all foreign investors deflated by the total number of shares outstanding for that company at year end as a percentage. According to our hypothesis, we expected the variable representing the mandatory adoption of IFRS (*Mandatory*) to be positively and significantly associated with foreign ownership.

As all listed companies in South Africa were required to apply IFRS for their financial years commencing on or after 1 January 2005, we followed Daske et al. (2008) in defining the independent variable of interest, namely, *Mandatory*. This variable takes a value of one when the company's financial year end is on or after 31 December 2005, as this would have been the first time that a South African listed company had to mandatorily report its results in terms of IFRS. The value for *Mandatory* is zero when the company's year-end was before 31 December 2005.

Covrig et al. (2007) as well as Covrig et al. (2006) identify a number of control variables influencing foreign investors' asset allocation decisions. Previous research has found that investors prefer to invest in companies with which they are familiar, and also that investors are more familiar with companies that are more visible to them and the rest of the world. Thus, following previous research, we included variables to control for the visibility of a company. Covrig et al. (2006) indicate in their study that the visibility proxies have a greater impact on foreign ownership holdings than on domestic ownership holdings.

We included foreign sales (*Forsa*), measured as the amount of foreign sales in the financial year deflated by the total amount of sales for the same period as per the company's annual financial statements. If a company makes more sales in countries other than its country of incorporation, it might be expected that more investors would take notice of the company as they become more familiar with the company's products or services. We also included a binary variable for cross-listed companies (*Clist*), coded as one when the firm is listed on a stock exchange besides the JSE, and zero otherwise. This variable has the ability to control for a company's visibility together with its trading environment, as the company will also have to meet the requirements of the other stock exchange on which it is listed. Analyst coverage (*Ana*) was also included, following Covrig et al. (2006), as the number of analysts following the company during the specified financial year. We expected this variable to have a positive correlation as indicated by Covrig et al. (2006). This correlation is supported by Tan, Wang and Welker (2011), who note that the mandatory adoption of IFRS attracts local and foreign analysts, and in particular foreign analysts from countries simultaneously adopting IFRS. We did not control for the relative credibility of

financial statements being audited by one of the Big Four auditing firms, as all the companies in our sample were audited by one of the Big Four firms.

We included a group of company-specific control variables identified by Florou and Pope (2012) and Covrig et al. (2006) as variables that impact investors' asset allocation decisions. These variables are well known in the accounting and finance literature and include the following: dividend yield (*Div*), defined as the total dividends declared for a financial year deflated by the market value of the company's equity at year end; book-to-market ratio (*Btm*), defined as the book value of equity relative to its market value at year end; and leverage (*Lev*), defined as the total liabilities divided by the total assets at year end for the company as measured in the annual financial statements. We did not make any prediction with regard to the association between leverage and foreign ownership, as different investors might have different perspectives with regard to the level of debt that they are willing to tolerate. Furthermore, we included earnings price ratio (*Eap*), calculated as the net earnings per share deflated by the market value of the equity at year end. We also included return on equity (*Roe*), defined as the net earnings deflated by the market value of equity at year end and share return (*ShRet*) over the financial year, to control for the performance of the stock exchange over the financial year. Lastly, we included a variable to identify and control for possible industry effects (*Ind*), and dummy variables to control for the fixed year (*Yr*) effects. The inclusion of time in our research design provided us with the opportunity to test the effect of the mandatory adoption of IFRS not only in 2005, but over the entire sample period. Table 1 summarises all the control variables used in our regression analysis, together with the expected association with foreign ownership:

**Table 1:** Control variables

<b>Control variable</b>	<b>Expected association</b>	<b>Control variable</b>	<b>Expected association</b>
Mandatory adoption ( <i>Mandatory</i> )	Positive	Book-to-market ratio ( <i>Btm</i> )	Positive
Foreign sales ( <i>Forsa</i> )	Positive	Leverage ( <i>Lev</i> )	No prediction
Analysts ( <i>Ana</i> )	Positive	Earnings price ratio ( <i>Eap</i> )	Positive
Cross listed ( <i>Clist</i> )	Positive	Return on equity ( <i>Roe</i> )	Positive
Dividend yield ( <i>Div</i> )	Positive	Share return ( <i>ShRet</i> )	No prediction
Industry ( <i>Ind</i> )	No prediction	Year ( <i>Yr</i> )	No prediction

## Empirical results

### Results

Table 2 sets out the descriptive statistics for the final sample of 35 companies (175 observations) listed on the JSE for the years 2003 to 2007. From panel A, it is clear that the mean of the dependent variable increased from 18.95% in 2003 to 22.60% in 2007, which suggests that the levels of foreign ownership increased in these South African companies. Panel B reports the results of the mean difference test that was performed. The mean percentage foreign ownership increased from 18.95 in 2003 to 19.86 in 2004, 20.87 in 2005, 21.84 in 2006 and 22.60 in 2007. Although it is possible that trust increased over time, resulting in a higher mean foreign ownership percentage, it should be noted that the mean foreign ownership levels before the adoption of IFRS (2003 and 2004), compared with the mean after the adoption of IFRS (2006 and 2007), was not statistically significant ( $p=0.297$ ).

**Table 2:** Descriptive statistics

<b>PANEL A</b>					
<b>Percentage foreign ownership</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>
N	35	35	35	35	35
Mandatorily adopted IFRS	0	0	12	23	0
Standard deviation	18.42	20.09	21.07	19.34	21.14
Median	12.32	11.74	12.21	14.44	16.32
Mean	18.95	19.86	20.87	21.84	22.60
<b>PANEL B</b>					
<b>Change in percentage foreign ownership</b>					
<b>Period</b>	<b>Mean</b>	<b>N</b>	<b>Significance (p)</b>	<b>Standard deviation</b>	
Pre-adoption 2003 to 2004	19.41	70		19.14	
Post-adoption 2006 to 2007	22.22	70		20.12	
Change	2.81	0	0.297		
Total	20.81	140		19.61	

Table 3 reports the results of the regression analysis in order to test the stated hypothesis. The  $F$ -value of the model is 2.924 and statistically significant ( $p < 0.001$ ). The significance of the model indicates that the  $F$ -value was not achieved by random chance and that the results can be regarded as reliable. Our objective was to

test whether the mandatory adoption of IFRS (*Mandatory* in the regression model) was associated with foreign ownership and not to predict foreign ownership levels. We were thus interested in whether the coefficient of *Mandatory* is positive and statistically significant.

The results indicated that the variable of interest in this study, *Mandatory*, is not significantly associated with foreign ownership in South African companies, as the *p*-value of 0.198 is more than 0.10 and the stated hypothesis is thus not supported. Contrary to our hypothesis, we provide evidence consistent with the suggestion by Leuz and Verrecchia (2000) as well as Daske et al. (2008) that where a country's domestic accounting standards differed only slightly from the IFRS (as in South Africa in the context of our study), the benefits gained would be less than when noticeable differences exist.

As a result of the harmonisation process, South Africa's local accounting standards (SA-GAAP) were aligned with the IFRS (SAICA 2003, 2004; Prather-Kinsey 2006).

**Table 3:** Regression results using pooled data (2003 to 2007)

<b>Dependent variable in regression model: Foreign ownership</b>			
	<b>Prediction</b>	<b>Coefficient</b>	<b>p-value</b>
Mandatory adoption	Positive	0.146	0.198
Foreign sales	Positive	-0.090	0.111
Analysts	Positive	-0.109	0.077*
Cross listed	Positive	0.047	0.264
Dividend yield	Positive	0.012	0.436
Book-to-market ratio	Positive	0.059	0.277
Leverage	None	-0.147	0.082*
Earnings price ratio	Positive	-0.244	0.001***
Return on equity	Positive	-0.264	0.008***
Share return	None	-0.077	0.353
Industry	None	-0.032	0.729
Year 2003	None	-0,102	0.524
Year 2004	None	-0.043	0.890
Year 2005	None	0.011	0.593
Year 2006	None	0.000	0.793
Year 2007	None	-0.025	0.923
Number of observations	175		
F-value	2.924 (p<0.000)		

\*\*\* Significant at the 1% level; \*\* Significant at the 5% level; \* Significant at the 1% level.

This suggests that the South African companies' information environment was already rich before the adoption of IFRS, which is further supported by the non-significant association between the variables controlling for visibility and foreign ownership. This could indicate that the market was already highly liquid before the adoption of IFRS. In summary, we attributed the results to the harmonisation process, which resulted in South African companies not experiencing a significant increase in foreign ownership levels as a result of the adoption of IFRS.

Contrary to Covrig et al. (2006) and the predictions made in Table 1, we found significant negative correlations between the levels of foreign ownership and the following control variables at the 1% level: earnings price ratio ( $p=0.001$ ) and return on equity ratio ( $p=.008$ ). Both these variables are linked to the net earnings of the company as defined in the research design, which thus suggests that foreign investors do not focus only on the earnings of a South African company, as this relationship indicates a higher level of foreign ownership when earnings are lower for a company. This could possibly be due to the foreign investors placing more emphasis on the statement of financial position of a company, as seen by the significant relationship with the leverage ratio (refer to the next paragraph for a more detailed discussion) that is derived from the statement of financial position. These investors could also place emphasis on equities of companies that have a valuable funnel of projects that would only generate earnings in the future, and therefore be prepared to be content with lower earnings over the short term.

The results furthermore indicate a significant negative relationship between foreign ownership and the number of analysts following the company, as well as its leverage ratio. Both these variables were significant at the 10% level, with  $p$ -values of 0.077 and 0.082 respectively. The possible reason for the negative association with the number of analysts following a company could be that the information environment was already rich before the adoption of IFRS. This could mean that the adoption of IFRS would not attract new analysts, and that there could in fact be fewer analysts following a company, as the analysts could obtain all the necessary information from the market without closely or specifically following that company.

The significant negative correlation between foreign ownership and leverage could indicate that foreign investors do not prefer a company taking on additional debt on their statement of financial position, as they might perceive such a company to be more risky. This could be due to the notion that a company with added debt runs the risk of not being able to service the higher debt and/or interest charges on the debt. The results do not indicate any other significant associations between foreign ownership and any other variables.

Due to the small sample size, the regression results of the model run on a yearly basis instead of using the pooled data could not be reliably estimated. However, the results, although they should be interpreted with caution, support the overall findings on the pooled data that the mandatory adoption of IFRS did not have a significant association with foreign ownership levels in South African companies listed on the JSE for the period 2003 to 2007.

## Conclusion and suggestions for future research

The purpose of this study was to document the changes in foreign ownership levels in a selected group of JSE-listed companies in South Africa that mandatorily adopted IFRS in 2005 and to test the association between the mandatory adoption of IFRS by these South African companies and foreign ownership. This setting created the unique opportunity to document the perceptions of foreign investors, as the IFRS adopted in 2005 was in essence the same as SA-GAAP (the previous domestic accounting standards) before the date of adoption resulting from a harmonisation project undertaken in South Africa. Using a local database covering 35 of the largest companies listed on the JSE in the period 2003 to 2007, our findings indicate that the mandatory adoption of IFRS did not have a significant and positive association with foreign ownership in large South African companies.

The study was subject to various limitations. Firstly, the study was conducted over a short time period, with only two pre- and post-adoption years, and might thus not represent the long-term effects of IFRS adoption in South Africa. Secondly, the sample comprised only a small number of large South African listed companies, and the results might not be generalisable to smaller South African companies or to companies listed on various other stock exchanges in other countries. Lastly, the research design did not distinguish between companies that voluntarily adopted IFRS before 2005 and those that did not, in order to determine whether any benefits were derived before 2005.

This study was the first to document the results of the mandatory adoption of IFRS in a South African context with regard to cross-border investment. The results did not yield a significant positive association as formulated in the hypothesis. The harmonisation process undertaken in South Africa to align SA-GAAP with IFRS before the mandatory adoption thereof ensured that only a few minor differences (mostly editorial) existed between these accounting standards (SAICA 2003, 2004; Prather-Kinsey 2006). The results of this study were consistent with those of Leuz and Verrechia (2000) and Daske et al. (2008), who note that a country where fewer

differences exist between the different accounting standards before the adoption of IFRS might gain fewer benefits from the adoption of IFRS.

Suggestions for future research include, firstly, to expand the current regression analysis to include and distinguish between voluntary and mandatory adopters of IFRS in the pre-adoption period. Secondly, this study could be enhanced by examining the effect over a longer time period before and after the mandatory adoption in order to specifically evaluate whether there was an increase in foreign ownership before the sample period. As the Accounting Practices Board (APB) decided to issue IFRS as SA-GAAP without any amendments in 2004 (SAICA 2004), and as the harmonisation process was completed in 2004, it would be possible to examine whether there was any significant association in foreign ownership levels for the years leading up to 2004, as it is possible that investors could have anticipated the transition.

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