

**University of Pretoria eTD - van der Poll, HM, 2004**

**Integrity issues of information created by book entries**

**by**

**Huibrecht Margaretha van der Poll**

**submitted in the fulfilment of the requirements for the degree**

**MAGISTER COMMERCII (FINANCIAL MANAGEMENT SCIENCES)**

**in the**

**FACULTY OF ECONOMIC AND MANAGEMENT SCIENCES**

**at the**

**UNIVERSITY OF PRETORIA**

**JUNE 2003**

### **Acknowledgements**

Firstly I would like to thank my Creator, the God of the Holy Trinity, for the gift and opportunity He gave me to complete this dissertation.

In addition I would like to express my gratitude to the following people who helped and supported me during my research:

- ★ Professor Daan Gouws, my study leader at the University of Pretoria, for his continued motivation and for his belief in me.
- ★ My husband, Professor André van der Poll, for his continued support, motivation and love. Thank you for all the late nights during which you helped me with language and proofreading.
- ★ My children, Hendrik (5) and Saretha (1), for their love.
- ★ My parents, Kris and Retha Krüger, for motivating me, believing in me and creating opportunities for me, by sending me to university.
- ★ Yvonne van Stuyvenberg, the subject librarian at the University of South Africa, for all her help with my literature searches.
- ★ Trish Cooper, who helped with the final language editing.
- ★ All those respondents who gave positive input to the questionnaire.
- ★ Professor Alfredo Martínez Bobillo from the University of Valladolid, Spain, for providing me with answers related to their article in the *Multinational Business Review*, which concerned the internal funds investigated as part of this dissertation.

Breggie van der Poll

June 2003

### **Abstract**

Book entries are vehicles used in accounting to accommodate non-cash transactions, timing differences and provisions. The use of book entries is a normal activity in accounting and may have their origin in accrual accounting. The management of a company may apply creative accounting techniques in the form of earnings management, in particular, adopting the practices of income smoothing and taking the so-called 'big bath'. These practices may result in the financial manager or accountant misusing book entries. This could then lead to information of a different integrity to that which would have resulted had these creative accounting practices not been performed in the company.

The question addressed in this dissertation and for which an answer is sought, is whether there is any notable difference in the integrity issues of information supplied through the accounting process and created by real transactions (real events) as opposed to information created by book entries (artificial events). The hypothesis underlying this dissertation is:

The integrity of information created by book entries is based on subjective opinions because it is based on future events therefore it is not the same as integrity of information created by real transactions that is based on historical events.

The new science is concerned with new guidelines, amongst other things, regarding reality, observation, objectivity, predictions and relationships among events. These new guidelines could be seen as explaining certain aspects which is relevant to the field of accounting. The attributes of a book entry are not based on reality, but are based on subjective predictions of future transactions etc. Another similarity is that a book entry is often not objective but is based on subjective observation.

Notable differences were observed in the integrity of the information emerging from a real, historical event and a future event. These differences were established through the

**University of Pretoria eTD - van der Poll, HM, 2004**

application of two research methods, namely, the use of a questionnaire and the analysis of the financial statements of 30 companies listed on The JSE Securities Exchange South Africa (JSE). The influence of book entries on certain ratios was considered, and the ratios influenced by two major book entries, namely, depreciation provision and deferred taxation, differ substantially in interpretation when the two book entries are reclassified. The results of the questionnaire also indicate that a large proportion of the financial managers in practice believe that book entries substantially influence the integrity of information.

**Keywords** Book entry

Earnings management

Events

Integrity of information

Occurrences

Transactions

## Opsomming

'n Boekinskrywing is 'n meganisme wat in rekeningkunde gebruik word om nie-kontanttransaksies, tydsverskille en voorsienings te akkommodeer. Die gebruik van boekinskrywings is 'n normale aktiwiteit in rekeningkunde en mag selfs hul oorsprong hê in toevalligrekeningkunde. Die bestuur van 'n maatskappy mag kreatiewe rekeningkundige tegnieke toepas in die vorm van verdienstebestuur, deur spesifiek gebruik te maak van inkomste-effening en die neem van 'n "*big bath*". Hierdie gebruike kan daar toe lei dat boekinskrywings misbruik word deur die finansiële bestuurder of die rekenmeester. Dit mag lei tot inligting wat verskil in integriteit van dié inligting waar geen kreatiewe rekeningkundige beginsels toegepas was nie.

Die vraag wat in hierdie verhandeling aangespreek word, en waarvoor 'n antwoord gesoek word, is om vas te stel of daar enige merkbare verskil is tussen die integriteitskwessies van wat deur die rekeningkundige proses voorsien word, en deur middel van egte transaksies (egte gebeurtenisse) geskep is, teenoor inligting deur boekinskrywings (kunsmatige gebeurtenisse) geskep. Dit lei tot die volgende hipotese:

Die integriteit van inligting wat deur boekinskrywings geskep word is gebaseer op subjektiewe menings omdat dit op toekomstige gebeurtenisse gebaseer word, daarom is daar 'n verskil met die integriteit van inligting wat deur egte transaksies geskep word wat op historiese gebeurtenisse gebaseer is.

Die nuwe wetenskap is gemoeid (onder andere) met nuwe riglyne ten opsigte van realiteit, waarneming, objektiwiteit, voorspellings en verhoudings tussen gebeurtenisse. Hierdie nuwe riglyne kan sommige aspekte wat relevant is vir die veld van rekeningkunde, verduidelik. Die eienskappe van 'n boekinskrywing is nie op realiteit gebaseer nie, maar gebaseer op subjektiewe voorspellings van toekomstige transaksies. 'n Verdere ooreenkoms is dat boekinskrywings meestal nie objektief is nie weens die feit dat dit gebaseer is op 'n subjektiewe waarneming.

## **University of Pretoria eTD - van der Poll, HM, 2004**

Merkbare verskille in die integriteit van inligting is verkry deur die waarneming van egte, historiese gebeurtenisse en toekomstige gebeurtenisse. Die verskille is basies vasgestel deur die toepassing van twee navorsingsmetodes naamlik, die gebruik van 'n vraelys en die ontleding van die finansiële state van 30 maatskappye wat op die JSE Sekuriteite Beurs Suid-Afrika genoteer is. Die invloed van boekinskrywings op sekere verhoudings word in oënskou geneem en die verhoudings wat beïnvloed word deur die twee wesenlike boekinskrywings, naamlik, die waardeverminderingvoorsiening en uitgestelde belasting, se interpretering verskil wesenlik in gevalle waar die twee boekinskrywings herklassifiseer word. Die resultate verkry uit die vraelys dui aan dat 'n groot aantal finansiële bestuurders glo dat boekinskrywings die integriteit van inligting wesenlik beïnvloed.

**Sleutelwoorde** Boekinskrywings

Gebeurtenisse  
Inkomste-bestuur  
Integriteit van inligting  
Transaksies  
Voorkomste

**Table of contents**

|   |          |
|---|----------|
| Acknowledgements .....  | ii       |
| Abstract .....  | iii      |
| Opsomming .....   | v        |
| List of figures .....   | xii      |
| List of tables .....  | xiii     |
| <b>Chapter 1: Background and the research problem .....</b>   | <b>1</b> |
| 1.1 Introduction .....  | 1        |
| 1.2 Problem statement .....                                   | 7        |
| 1.2.1 Book entries are necessary for accrual accounting ..... | 8        |
| 1.3 Motivation .....  | 10       |
| 1.3.1 Importance of the study .....                           | 10       |
| 1.3.2 Beneficiaries of the study .....                        | 11       |
| 1.4 Hypothesis .....  | 11       |
| 1.5 Research objectives .....                                 | 11       |
| 1.6 The research methodology .....                            | 12       |
| 1.7 Layout of the dissertation .....                          | 13       |

|  |           |
|--|-----------|
| <b>Chapter 2: Perspectives surrounding book entries . . . . .</b>          | <b>15</b> |
| 2.1 Introduction . . . . .   | 15        |
| 2.2 The history of book entries . . . . .                                  | 15        |
| 2.2.1 Early treatment of depreciation . . . . .                            | 16        |
| 2.2.2 History of other book entries . . . . .                              | 20        |
| 2.2.3 History of the cash flow statement . . . . .                         | 22        |
| 2.3 Critical analysis of definitions . . . . .                             | 24        |
| 2.3.1 Accounting . . . . .   | 24        |
| 2.3.2 Transactions, events and occurrences . . . . .                       | 25        |
| 2.3.3 Book entries . . . . .   | 27        |
| 2.3.3.1 Examples of book entries . . . . .                                 | 28        |
| 2.3.4 Internal funds . . . . .   | 30        |
| 2.3.5 Accounting and accounting information . . . . .                      | 32        |
| 2.3.6 Integrity . . . . .  | 34        |
| 2.4 Summary and conclusion . . . . .                                       | 35        |
| <b>Chapter 3: Book entries and a new information perspective . . . . .</b> | <b>36</b> |
| 3.1 Introduction . . . . .   | 36        |
| 3.2 Relationships . . . . .  | 37        |
| 3.3 Observation . . . . .  | 41        |
| 3.4 Reality . . . . .  | 43        |
| 3.5 Objectivity . . . . .  | 46        |

|  |           |
|--|-----------|
| 3.6 Prediction . . . . .   | 47        |
| 3.7 Time . . . . .   | 48        |
| 3.7.1 Accounting's time paradigm . . . . .   | 48        |
| 3.8 Conclusion . . . . .   | 49        |
| <b>Chapter 4: Book entries and their relationship to accrual accounting and accounting assumptions . . . . .</b> | <b>51</b> |
| 4.1 Introduction . . . . .   | 51        |
| 4.2 The role of transactions in accrual accounting . . . . .   | 52        |
| 4.3 The relationship of book entries with certain accounting assumptions and the use of ratios . . . . .         | 54        |
| 4.3.1 The matching assumption . . . . .  | 54        |
| 4.3.2 Contingencies . . . . .  | 58        |
| 4.3.3 Classification . . . . .   | 60        |
| 4.3.4 Provisions . . . . .   | 61        |
| 4.3.5 Conservatism . . . . .   | 62        |
| 4.3.6 The use of ratios . . . . .  | 63        |
| 4.4 Depreciation and deferred taxation as examples of book entries . . . . .                                     | 66        |
| 4.4.1 Depreciation . . . . .   | 66        |
| 4.4.2 Deferred taxation . . . . .  | 68        |
| 4.5 Summary and conclusion . . . . .   | 69        |
| <b>Chapter 5: The role of book entries in income smoothing and big baths . . . . .</b>                           | <b>71</b> |

|  |           |
|--|-----------|
| 5.1 Introduction .....   | 71        |
| 5.2 Big baths and income smoothing .....   | 74        |
| 5.3 Big baths versus income smoothing .....  | 75        |
| 5.4 Why do companies make use of earnings management? .....                                      | 78        |
| 5.4.1 Reasons for income smoothing .....   | 79        |
| 5.4.2 Reasons for applying a big bath .....  | 80        |
| 5.5 Applying income smoothing through book entries .....   | 81        |
| 5.6 Book entry accounting and its effect on information .....                                    | 83        |
| 5.7 Conclusion .....   | 85        |
| <b>Chapter 6: Research methodology .....</b>   | <b>87</b> |
| 6.1 Introduction .....   | 87        |
| 6.2 Literature survey .....  | 87        |
| 6.3 Analytical research .....  | 88        |
| 6.3.1 Ratios adjusted by reclassifying accumulated depreciation and deferred taxation .....      | 90        |
| 6.4 Questionnaire .....  | 93        |
| <b>Chapter 7: Results of the literature study, the analytical research and the questionnaire</b> |           |

|   |            |
|---|------------|
| .....   | 98         |
| 7.1 Introduction .....  | 98         |
| 7.2 Literature study .....  | 98         |
| 7.3 Analytical research .....   | 101        |
| 7.3.1 Ratios affected by reclassifying depreciation and deferred taxation ..... | 101        |
| 7.3.2 Ratios used with reference to internal funds .....                        | 105        |
| 7.4 Questionnaire .....   | 107        |
| 7.4.1 General .....   | 107        |
| 7.4.2 The definition of a book entry .....                                      | 108        |
| 7.4.3 Responses to each statement .....   | 114        |
| 7.4.4 General comments received from the questionnaire .....                    | 132        |
| <b>Chapter 8: Conclusion and recommendations .....</b>                          | <b>139</b> |
| 8.1 Introduction .....  | 139        |
| 8.2 Contributions of this work .....  | 139        |
| 8.5 Recommendation .....  | 149        |
| <b>References .....</b>   | <b>150</b> |
| <b>Appendix A:</b> Covering letter .....  | <b>158</b> |
| <b>Appendix B:</b> The questionnaire used in the survey of opinions: .....      | <b>159</b> |

### List of figures

|            |  |    |
|------------|--|----|
| Figure 3.1 | Relationships in accounting .....        | 39 |
| Figure 3.2 | Accounting's time paradigm .....         | 49 |
| Figure 5.1 | An illustration of a big bath .....      | 76 |
| Figure 5.2 | An illustration of smoothed income ..... | 77 |

### List of tables

|           |   |     |
|-----------|---|-----|
| Table 2.1 | A three-level cash flow adjustment .....  | 23  |
| Table 4.1 | Problems solved by accrual accounting .....   | 53  |
| Table 4.2 | Ratios predicting failure (Author created) .....  | 64  |
| Table 4.3 | Ratio categories .....  | 65  |
| Table 6.1 | List of companies selected for research purposes .....  | 89  |
| Table 7.1 | Analysis of deviations in return on investment and return on equity<br>.....  | 102 |
| Table 7.2 | Analysis of deviation in the long-term-debt-to-equity ratio .....   | 103 |
| Table 7.3 | Analysis of deviation in the gearing ratio .....  | 104 |
| Table 7.4 | Average deviation analysis - book entries as a percentage of equity<br>.....  | 104 |
| Table 7.5 | Average deviation analysis - book entries as a percentage of turnover,<br>cash from operating activities and profit attributable to shareholders<br>..... | 105 |
| Table 7.6 | Results of internal fund ratios (Martinez Bobillo 2002) .....   | 106 |
| Table 7.7 | List of responses .....   | 108 |