THE EFFECT OF INVESTOR-LEVEL TAX REFORM ON PAYOUT POLICIES: EVIDENCE FROM COMPANIES LISTED IN SELECTED SECTORS ON THE JOHANNESBURG STOCK EXCHANGE

by

Rudie Nel

Dissertation presented for the degree of
Doctor of Philosophy in Business Management and Administration (with specialisation in taxation)
in the Faculty of Economic and Management Science
at Stellenbosch University

Supervisor: Prof Nicolene Wesson

Co-supervisor: Dr Lee-Ann Steenkamp

December 2021

DECLARATION: PLAGIARISM

By submitting this dissertation electronically, I declare that the entirety of the work contained therein is my own, original work, that I am the sole author thereof (save to the extent explicitly otherwise stated), that reproduction and publication thereof by Stellenbosch University will not infringe any third party rights and that I have not previously in its entirety or in part submitted it for obtaining any qualification.

This dissertation includes three original papers published in peer-reviewed journals. The development and writing of these papers were the principal responsibility of myself.

Date: December 2021

ABSTRACT

Tax reform in a country offers an opportunity to investigate the effect of taxes on payout policies in support of the tax and tax clienteles theory as an explanation for paying dividends. Tax reform in South Africa since 2011 contains the amendment of the definition of dividend, the introduction of dividends tax, and consecutive increases in tax rates. The extensive nature of the tax reform, including an amendment relating to the share repurchases by companies listed on the Johannesburg Stock Exchange, offers a unique setting for conducting empirical research in South Africa.

The research question of this study was whether the payout policies of selected companies listed on the Johannesburg Stock Exchange were adjusted on the basis of investor-level tax reform. An empirical research design, which was quantitative in nature, was pursued to provide descriptive and explanatory evidence in order to answer the research question. The four research objectives of this study focused on the after-tax values of payout methods, the timing of dividend declarations, the trend and composition of total payout, and the relationship between investor tax preference parameters and payout methods. This study is submitted as the first study of its kind to be conducted in a South African context, and in particular, from the perspective of a developing country and emerging market. For selected listed companies (excluding secondary listings on Johannesburg Stock Exchange as well as companies in the resources and financial sectors) the financial reporting periods from 2006 to 2019 were considered. The central year of interest in this study was 2012 when dividends tax was introduced in South Africa on 1 April 2012.

An overview of tax reform and the after-tax values of payout methods enunciated the increased role of taxes as a result of the conflicting tax preferences of investors (individuals, corporates, and institutions) for different payout methods (dividends, capital distributions, additional shares, and share repurchases). Eight propositions in respect of a tax effect on payout policies were also informed by the overview of tax reform and after-tax values. Support for these propositions was considered based on the results of research objectives as evidence of whether payout policies were adjusted on the basis of investor-level tax reform.

The timing of interim dividends declared during 2012 was found to have been postponed and supported by a tax explanation which suggested that payout policies were adjusted in a year of investor-level tax reform. The trend and composition of total payout during the post-2012 period were also found to have differed from the pre-2012 period in support of propositions based on tax reform and after-tax values. Ordinary dividends were increasingly used as a payout method during

the post-2012 period with a decrease in the use of payout methods other than ordinary dividends. The increase in the value and frequency of electing scrip dividends (additional shares with a cash alternative) during the post-2012 period suggests an adjustment of payout policies which confers more flexibility to investors to manage their financial interests, including tax considerations.

The relationship between changes in payout methods, profitability, and three categories of investor tax preference parameters (individuals, corporates, and institutions) since 2012 was also investigated by means of regression analyses. Regression results found changes in the investor tax preferences of corporates as the most statistically significant of all three categories of investors considered in explaining changes in dividends. This finding supports a proposition based on a dividends tax exemption afforded to corporates and consecutive increases in the effective rate at which capital gains of corporates are taxed. Furthermore, regression results revealed the presence of a top individual investor in companies to be associated with lower payout methods other than dividends. This finding supports the rent extraction hypothesis which posits that top shareholders could prefer to extract private benefits of control rather than payout that equally benefit all shareholders. The finding further extended to include directors based on the fact that directors represent top individual shareholders by an overwhelming majority.

This study contributes to corporate finance literature by providing empirical evidence that suggests that the payout policies of selected companies were adjusted on the basis of investor-level tax reform. An effect of investor-level tax reform on payout policies is submitted on the basis of the fact that payout policies were adjusted. Evidence from South Africa as a developing country and emerging market further contributes to literature on dividend policy practices in emerging markets. The data collected, the data collection method, and limitations of this study could serve as a basis for future research into the effect of taxes on payout policies.

Keywords

after-tax value; investor-level tax; payout method; payout policy; tax preference

OPSOMMING

Belastinghervorming in 'n land bied die geleentheid om die effek van belasting op uitkeerbeleide te ondersoek ter ondersteuning vir die belasting- en belastingkliënte-teorie as verklaring vir die betaling van dividende. Belastinghervorming in Suid-Afrika sedert 2011 bevat die wysiging van die definisie van dividend, die inwerkingstelling van dividendbelasting, en opeenvolgende verhogings in belasting-koerse. Die omvattende aard van die belastinghervorming, insluitende 'n wysiging in verband met die terugkoop van aandele deur maatskappye wat op die Johannesburgse Effektebeurs genoteer is, bied 'n unieke opset vir empiriese navorsing in Suid-Afrika.

Die navorsingsvraag van dié studie was of die uitkeerbeleide van geselekteerde maatskappye wat op die Johannesburgse Effektebeurs genoteer is, op grond van beleggersvlakbelastinghervorming aangepas is. 'n Empiriese navorsingsontwerp, wat kwantitatief van aard is, is gevolg om beskrywende en verduidelikende bewys te lewer ten einde die navorsingsvraag te beantwoord. Die vier navorsingsdoelwitte van die studie het gefokus op die na-belaste waardes van uitkeermetodes, die tydsberekening van dividendverklarings, die neiging en samestelling van totale uitkerings, en die verwantskap tussen die belasting-voorkeurparameters van beleggers en uitkeermetodes. Die studie word voorgehou as die eerste studie van sy soort uitgevoer in ’n Suid-Afrikaanse konteks en, in besonder, vanaf die perspektief van ’n ontwikkelende land en ontluikende mark. Vir geselekteerde genoteerde maatskappye (uitsluitende sekondêre noterings op die Johannesburgse Effektebeurs, sowel as maatskappye in die hulpbron- en finansiële sektore) is finansiële verslagdoenings-tydperke vanaf 2006 tot 2019 oorweeg. Die sentrale jaar van belang in die studie was 2012 met die inwerkingstelling van dividendbelasting in Suid-Afrika op 1 April 2012.

’n Oorsig van belastinghervorming en die na-belaste waardes van uitkeermetodes benadruk die verhoogde rol van belasting weens die konflik van beleggers (individue, maatskappye, en instellings) se belastingvoorkeur vir verskillende uitkeermetodes (dividende, kapitaaluitkerings, addisionele aandele, en terugkoop van aandele). Agt voorstelle ten opsigte van ’n effek van belasting op uitkeerbeleide is ook deur die oorsig van belastinghervorming en na-belaste waardes toegelig. Ondersteuning vir die voorstelle is op grond van resultate van navorsingsdoelwitte oorweeg as bewys of uitkeerbeleide op grond van beleggersvlakbelastinghervorming aangepas is, al dan nie.

Daar is bevind dat die tydsberekening van interim dividendverklarings gedurende 2012 uitgestel en ondersteun is deur ’n belastingverduideliking, wat getoon het dat uitkeerbeleide in ’n jaar van

beleggersvlakbelastinghervorming aangepas is. Daar is ook bevind dat die neiging en samestelling van totale uitkerings in die tydperk na 2012 verskil het van die tydperk voor 2012 en voorstelle op grond van belastinghervorming en na-belaste waardes onderskryf het. Gewone dividende is in die tydperk na 2012 toenemend as uitkeermetode benut met ’n afname in die gebruik van uitkeermetodes anders as gewone dividende. Die toename in die waarde en frekwensie van selektering van skripdividende (addisionele aandele wat ’n kontantalternatief bied) in die tydperk na 2012, dui op ’n aanpassing van uitkeerbeleide wat meer buigsaamheid aan beleggers verleen om hul finansiële belange, insluitende belasting, te kan bestuur.

Die verwantskap tussen veranderinge in uitkeermetodes, winsgewendheid en drie kategorieë van beleggersbelastingvoorkeurparameters (individue, maatskappye, en instellings) is ook sedert 2012 deur middel van regressieanalises ondersoek. Regressieresultate het veranderinge in die beleggers-belastingvoorkeurparameters van maatskappye as statisties die heel beduidendste, van al drie kategorieë beleggers wat oorweeg is, in verduideliking van veranderinge in dividende bevind. Dié bevinding rugsteun ’n voorstel op grond van ’n vrystelling van dividendbelasting wat aan maatskappye gebied word en opeenvolgende verhogings in die effektiewe koers waarteen kapitaalwinste van maatskappye belas word. Voorts het regressieresultate ook geopenbaar dat die teenwoordigheid van ’n top individuele aandeelhouer in maatskappye geassosieer is met laer uitkeermetodes anders as dividende. Die bevinding onderskraag die huuronttrekkingshipotese wat postuleer dat top aandeelhouers kan verkies om privaatvoordele te onttrek op grond van beheer eerder as om uitkerings te ontvang wat gelyke voordeel aan alle aandeelhouers bied. Die bevinding word voorts uitgebrei om spesifiek ook direkteure in te sluit weens die feit dat direkteure top individuele aandeelhouers met 'n oorweldigende meerderheid verteenwoordig.

Dié studie lewer ’n bydrae tot korporatiewe finansies literatuur deur empiriese bewyse te lewer wat voorstel dat die uitkeerbeleide van geselekteerde maatskappye wel op grond van beleggersvlak-belastinghervorming aangepas is. ’n Effek van beleggersvlakbelastinghervorming op uitkeerbeleide word aan die hand gedoen, gegewe die feit dat uitkeerbeleide aangepas is. Bewyse uit Suid-Afrika, as 'n ontwikkelende land en ontluikende mark, dra bykomend by tot die literatuur ten opsigte van dividendbeleid praktyke in opkomende markte. Die data ingesamel, die data insamelingsmetode, en beperkings van dié studie kan dien as basis vir toekomstige navorsing in verband met die effek van belasting op uitkeerbeleide.

Sleutelwoorde

na-belastingwaarde; beleggersvlakbelasting; uitkeermetode; uitkeerbeleid; belastingvoorkeur

ACKNOWLEDGEMENTS

- To my supervisor, Prof Nicolene Wesson, your supervision was invaluable towards the completion of this dissertation. It was an honour to have had you as my supervisor and I appreciate your time and investment in my research.

- To my co-supervisor, Dr Lee-Ann Steenkamp, your insightful suggestions and guidance contributed to improve the overall flow of arguments and is much appreciated.

- To Prof Martin Kidd and Prof Daan Nel from the Centre for Statistical Consultation (Stellenbosch). Thank you for your time and sharing your expertise in respect of the statistical analyses performed in this dissertation.

- To Julie Streicher, thank you for the technical and language editing of my dissertation. Your thoughtful suggestions clarified arguments, improved ease of reading, and enhanced the quality of language used in this dissertation.

- To Prof Linda van Heerden from the School of Accountancy (Stellenbosch). Your moral support since the start of my academic career served as motivation. Thank you for believing in me and your support in my academic career.

- To my wife, Sharon, your love and care motivates me in so many endeavours. Thank you for your encouragement and enabling me to complete this study.

- To my family, friends, and colleagues I appreciate your words of encouragement and support during the past few years.

- Finally, I thank my God for the perseverance and strength to complete this dissertation.

DEDICATION

This dissertation is dedicated to my father who passed away in July 2021.

Dad, thank you for the enduring love and support you provided to your children and family.

We miss you dearly and will find some comfort in the loving memories we have shared.

DECLARATION: LANGUAGE EDITING

16 Hamilton Mews
Lone Hill, Johannesburg
2191
17 March 2021

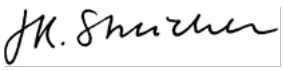
Stellenbosch Business School
PO Box 610
Bellville, Cape Town
7530

Dear Sir/Madam

Declaration of language editing

I, Julie Streicher, hereby declare that I have personally read through the doctoral dissertation of Rudie Nel and have pointed out language errors.

Yours sincerely



BA (English) (Stellenbosch), UED (Rhodes)
English language specialist / Full member of the Professional Editors' Guild

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF APPENDICES

ABBREVIATIONS

ANOVA	analysis of variance
CTC	contributed tax capital
CPI	consumer price index
DRIP	dividend reinvestment plan
df	degrees of freedom
IASB	International Accounting Standards Board
JSE	Johannesburg Stock Exchange
ln	natural log
LSD	least significant difference
MAE	mean absolute error
Mdn	median
MS	mean square
N	total number in sample
OLS	ordinary least squares
P-value	the attained level of significance
ROA	return on assets
SARS	South African Revenue Service
SCE	statement of changes in equity
SD	standard deviation
SE (or SEM)	standard error
SENS	Stock Exchange News Service
SS	sum of squares
STC	secondary tax on companies
STRATE	Share Trading Transactions Totally Electronic
UK	United Kingdom
USA	United States of America

CHAPTER 1: INTRODUCTION

1.1 BACKGROUND

Payout policy is central to most questions in corporate finance as the amount and method chosen as distribution could affect valuation, investment decisions as well as the taxes investors would pay (Farre-Mensa et al., 2014, p. 76). As investors in companies could be diverse, the investor-level taxes investors would pay could also differ, resulting in the conflicting tax preferences of investors. The investigation of how companies respond when faced with the conflicting tax preferences of investors could be of interest in three distinct respects (Badenhorst, 2017, p. 103). Firstly, for researchers of taxation and corporate governance, the role that investors could play in the payout decisions of companies could be enunciated. Secondly, for investors and regulators, the interaction between investors with conflicting interests could be revealed. Thirdly, for those charged with fiscal responsibility, changes in behaviour due to changes in tax legislation could be made known. An investigation of the effect of investor-level tax reform on payout policies is thus submitted as warranted based on the conceivable contribution to the body of knowledge and policy implications.

A shock to taxes (tax reform) is argued as a preferred means of identifying tax effects in payout policy decisions (Farre-Mensa et al., 2014, p. 99). Investor-level tax reform in South Africa has been extensive with the introduction of an amended definition of dividend for tax purposes during 2011, the subsequent change in tax regime to an investor-level dividends tax effective from 1 April 2012, and increases in tax rates applicable to payout methods. The amended definition of dividend, in particular, excludes the general share repurchases of companies listed on the Johannesburg Stock Exchange (JSE) since 2011, which provides for a unique setting to focus on JSE-listed companies. The change in tax regime during 2012 resulted in the possibility of dividend tax arbitrage arising for the first time, as only certain investors are exempt from dividends tax (Marcus & Toerien, 2014, p. 100). Conflicting tax preferences of investors could as a result arise because of dividends tax which is assessed at investor level, only affording exemption to certain investors. As payout methods other than dividends could result in capital gains tax, a payout method could be subjected to dividends tax, capital gains tax, or a combination of both. The effective capital gains tax rate in South Africa is the product of an inclusion rate and normal tax rate, both of which have been subjected to tax reform since the introduction of dividends tax. Based on tax reform, the South African context provides an opportunity for investor-level tax reform on payout policies to be investigated.

The investigation of the effect of investor-level tax reform in the present study focuses on the timing of payout methods, the composition of total payout, and the relationship between investor tax preference parameters and payout methods.

The timing of payout methods in the present study refers to dividend declaration dates as well as the size of distributions. The postponement or acceleration of dividends in response to anticipated tax reform has been considered as the first potential behavioural response to tax incentives (Hanlon & Hoopes, 2014, p. 107; Slemrod, 1992). The change in tax regime in South Africa during 2012 would have been anticipated as the tax reform was announced but only subsequently became effective. Dividend declarations could therefore have been postponed or accelerated pending the introduction of dividends tax. The size of the distributions could also be adjusted to postpone or accelerate a payout method pending the introduction of dividends tax. The trend of payout methods over a period could provide insights into changes in the size of payout methods distributed. The anticipated change in the tax regime in South Africa thus affords an opportunity to investigate the effect of tax reform on payout policies with reference to the timing of payout methods.

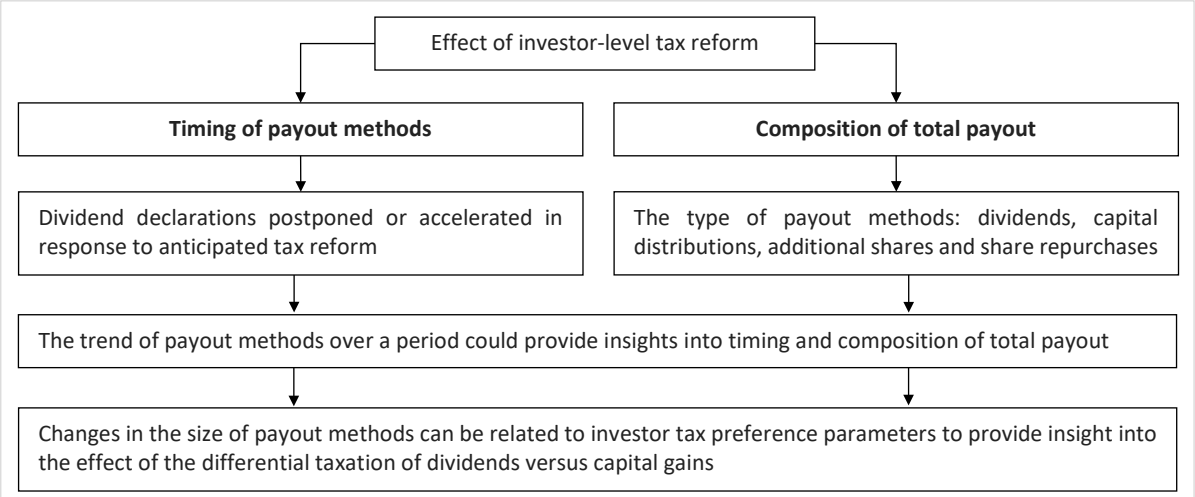
The composition of total payout in the present study refers to different types of payout methods. The effect of taxes on payout policy in finance literature has been analysed using a very narrow definition of dividend payout and, with only a few exceptions, does not cover the issue of total payout or the composition of payout (Allen & Michaely, 2003, p. 358). The different types of payout methods included in the present study were dividends, capital distributions, additional shares, and share repurchases. Dividends would entail profits distributed to an investor without any return of capital invested by the investor. Capital distributions would be as a result of a return of stated capital (share capital or share premium) to investors and submitted as a payout method owing to a return of the capital not being guaranteed. Additional shares issued would represent a payout method if issued to an investor at a consideration below the market value of the shares, the discount represents value distributed to an investor as a payout method. Additional shares could serve as substitute for cash dividends in cash-strapped companies or financially constrained companies preserving cash (Feito-Ruiz et al., 2020; Lasfer, 1997). Share repurchases would entail a return of capital to an investor and, if such a return exceeds the original capital invested, the excess represents value distributed to an investor as a payout method. Share repurchases could serve as substitute payout method for cash dividends in order to maximise the after-tax return of investors (Alzahrani & Lasfer, 2012). An investigation into the composition of total payout consisting of different payout methods, not only limited to dividends, could as a result contribute to literature.

Changes in the timing and composition of payout methods can also be related to changes in investor tax preference parameters. Investor tax preference parameters express the relative tax burden of dividends versus capital gains for different categories of investors (Geiler & Renneboog, 2015). As different types of payout methods could be subjected to dividends tax or capital gains tax, the differential taxation of dividends versus capital gains in a choice between the different payout methods would be enunciated by tax reform in South Africa since 2011. The question of whether the differential taxation of dividends versus capital gains affects the supply of dividends remains a promising avenue for research (Farre-Mensa et al., 2014, p. 103) and is explored in the present study. Consequently, investor tax preference parameters employed as a variable affords the opportunity to contribute empirical evidence which is explanatory in nature in a South African context.

The present study accordingly investigated the effect of investor-level tax reform with reference to the timing of payout methods, the composition of total payout, and the relationship between investor tax preference parameters and payout methods, as illustrated in Figure 1.1.

Figure 1.1

Effect of investor-level tax reform



The trend in the payout of JSE-listed companies since the introduction of dividends tax has been observed as dividends increasing from 2012 to 2014 (Badenhorst, 2017; Nyere & Wesson, 2019). Share repurchases were also noted to have increased during 2014 and 2015 (Steenkamp & Wesson, 2020). South African literature does not, however, consider the effect of increased dividends in relation to payout other than dividends since the introduction of dividends tax. The present study is grounded in the taxes and tax clienteles theory for which support in a South African context has been argued based on dividend growth from 2012 to 2014 (Nyere & Wesson, 2019). This study expands on the study of Nyere and Wesson (2019) in respect of the taxes and tax clienteles theory by considering

company-specific investor tax preference parameters to provide explanatory empirical evidence and by not only focusing on dividends but considering total payout.

1.2 RESEARCH PROBLEM

A review of literature conducted for this study did not reveal any evidence of prior studies on the effect of investor-level tax reform on payout policies of JSE-listed companies with reference to the timing of dividend declarations, the composition of total payout, or the relationship between investor tax preference parameters and payout methods. An opportunity to contribute to corporate finance literature was provided by South African tax reform since 2011 that affects the tax preference of investors for different payout methods.

1.3 RESEARCH QUESTION

The research question of the study was whether the payout policies of selected JSE-listed companies were adjusted on the basis of investor-level tax reform. The overarching aim was to investigate the effect of investor-level tax reform on payout policies.

1.4 RESEARCH OBJECTIVES

Four research objectives were pursued in order to answer the research question of the study:

i. To calculate the after-tax values of different payout methods for different categories of investors
ii. To investigate the timing of dividend declarations before and after the introduction of dividends tax
iii. To investigate the trend and composition of total payout before and after the introduction of dividends tax
iv. To investigate the relationship between changes in payout methods and changes in investor tax preference parameters since the introduction of dividends tax

Propositions in respect of payout policies were submitted on the basis of an overview of tax reform and after-tax values (first research objective). Support for the propositions was then considered based on the results of the second, third and fourth research objectives in order to answer the research question of the study. Research objectives are intended to triangulate empirical evidence on the effect of investor-level taxes on payout policies by considering the second, third and fourth research objectives as independent means by which payout policies could be adjusted. An effect of investor-level tax reform on payout policies is inferred on the basis of whether or not payout policies were adjusted.

1.5 CONCEPTUALISATION OF CENTRAL RESEARCH THEMES

The study deals with the three central themes of 'investor', 'tax reform' and 'payout policies', which are detailed in this section. The definition of the central concepts is based on literature consulted, including the Income Tax Act 58 of 1962 as amended (Republic of South Africa, 2020) and the Companies Act 71 of 2008 (Republic of South Africa, 2009).[1]

An 'investor' is intended to refer to a natural person or juristic person entitled to the participation rights and capital growth attached to a share. An investor could accordingly be the registered shareholder or the beneficial owner of a share.[2] A shareholder means the holder of a share issued by a company, who is entered as such in the certificated or uncertificated securities register in terms of section 1 of the Companies Act (Republic of South Africa, 2009). A beneficial owner means the person entitled to the benefit of the dividend attached to a share in terms of section 64D of the Income Tax Act (Republic of South Africa, 2020).

This study further considered three categories of investors: individuals, corporates, and institutions.[2] Individuals refer to natural persons or human beings. Corporates refer to juristic persons that qualify as a company as defined in section 1 of the Companies Act (Republic of South Africa, 2009) which by implication also include close corporations. The concept of 'corporate' would accordingly be regarded as synonymous with the term 'firm' also applied in literature. Institutions, or institutional investors, refer to entities with large amounts to invest, such as investment companies, brokerages, insurance companies, pension funds, investment banks, and endowment funds (JSE, 2016). In the calculation of after-tax values in the present study, a fund investor would represent institutions as the main institutional investor based on holdings in JSE-listed equities (Thomas, 2017). For purposes of investor tax preference parameters, the shareholding of institutions would include funds as well as other institutional investors not classified as individuals or corporates. An entitlement to capital growth implies a long-term investor holding shares with a capital intent resulting in the proceeds on disposal of the shares being subject to capital gains tax.[3] The focus on capital gains tax enabled the effect of the differential taxation of dividends versus capital gains, as highlighted by Farre-Mensa et al. (2014), to be investigated.

---

[1] Extracts of definitions from the applicable legislation are provided in Appendix B and Appendix C.

[2] Detailed discussions in respect of the distinction between registered and beneficial shareholding, as well as the three categories of investors, are provided later in the dissertation (sections 2.10.1, 4.8.2.1 and 4.8.2.2).

[3] The assumption applied that shares should be held with a capital intent, as opposed to a revenue or income-generating intent, results in a focus on capital gains tax which is further argued under section 4.5.2.2.

The concept of 'tax reform' refers to reforms to the structure of the tax system (types of taxes) and the structure of tax rates (Van Heerden, 2013). The tax reform considered in this study related to the Income Tax Act (Republic of South Africa, 2020) and included provisions effective before the date of the 2020 South African Budget Speech, being 26 February 2020.

The concept of 'payout policies' is intended to refer to the decision of a company in respect of the timing, size, and type of payout method. A payout method refers to a distribution as defined in terms of section 1 of the Companies Act (Republic of South Africa, 2009) and a dividend as defined in terms of section 1 of the Income Tax Act (Republic of South Africa, 2020). The word 'policy' implies some consistency over time and that payout, dividends in particular, do not simply evolve arbitrarily and randomly (Allen & Michaely, 2003, p. 340). The term 'payout policy' contemplated in the present study include a choice between different payout methods (dividends, capital distributions, additional shares, and share repurchases) and a decision on the timing of a payout method (the literal timing of payout methods as well as the postponement or acceleration in the value of payout methods).

1.6 MERITS AND CONTRIBUTION OF STUDY

The surveyed literature provides mixed empirical evidence of the effect of taxes on the payout decisions of companies (Geiler & Renneboog, 2015; Ismail et al., 2018; Lamyaa & Karima, 2017). A lack of research in countries other than the United States of America (USA) and specifically the dividend policy practices in emerging markets have been suggested in literature (Baker & Jabbouri, 2016; Geiler & Renneboog, 2015; Jabbouri & Attar, 2018). Evidence from South Africa as a developing country and emerging market could contribute to the literature of developing countries in terms of the effect of taxes on the payout decisions of companies. Marcus and Toerien (2014) concluded that, in a South African research context, a detailed examination of the tax effects on equity-related financing decisions had been omitted possibly owing to a lack of management consideration of tax factors, or simply owing to a lack of focused research. The present study argues that, in respect of the effect of tax on payout policy decisions in South Africa, there has been a lack of focused research since the introduction of dividends tax, which provides an opportunity to contribute to corporate finance literature.

This study is submitted as the first study to be conducted in a South African context, and in particular from the perspective of a developing country, to consider the after-tax values of payout methods, the timing of dividend declarations, the total payout of companies, and investor tax preference parameters to investigate the effect of investor-level tax reform on payout policies. The supposition that this study contributes to the body of knowledge is also supported by three peer-reviewed papers

that were published relating to the first research objective (Nel, 2018), the second research objective (Nel & Wesson, 2019), and the third research objective (Nel & Wesson, 2021) of the present study.

The present study contributes to the existing body of knowledge in the following respects:

i. The study provides South African literature on the subject of whether the differential taxation of dividends versus capital gains affects the supply of dividends, which has been earmarked as an important aspect of taxes in payout policy decisions (Farre-Mensa et al., 2014, p. 103).

ii. The study investigates how companies respond when faced with the conflicting tax preferences of investors. The response of companies to the conflicting tax preferences of investors could be of interest to researchers and investors as it could reveal the role that investors play in the payout decisions as well as the interaction between investors with conflicting interests (Badenhorst, 2017, p. 103).

iii. The study provides evidence of corporate behaviour based on tax reform, which could have policy implications. An understanding of investors' preferences and corporate payout behaviour is a prerequisite for efficient policy formulation (Chazi et al., 2018). The effects of tax reform on corporate behaviour have also been submitted as of utmost importance to policymakers to stimulate private investment and economic growth (Zagonel et al., 2018). The policy implications of the present study are that findings could be informative to government regarding the impact of tax reforms on corporate behaviour, which could, in turn, assist in revenue forecasting and assessing the impact of proposed future tax reform initiatives.

iv. The study investigates how corporates respond to dividends tax which could reveal efficiency and equity trade-off. High dividend tax rates could induce companies to retain earnings instead of paying dividends, which could lead to inefficient investments and create substantial efficiency costs (Herron & Platt, 2021). High dividend tax rates could also create equity (fairness) benefits if wealth is redistributed disproportionately to wealthy individuals (Herron & Platt, 2021). Given this equity-efficiency trade-off, corporate responses to dividend tax rates are an important public policy issue (Herron & Platt, 2021) which warrant further research.

The data collection of the present study culminated in a database of total payout and investor tax preference parameters of selected companies. The data collection further resulted in investor shareholding (by individual, corporate, and institutional investors) being documented for selected companies. The extent of ownership held by individuals and institutional investors has been highlighted as lacking in South African literature (Toerien & Marcus, 2014). The data collected are not currently readily available in a commercial or public database and could serve as a source for other future research endeavours.

1.7 STUDY AND CHAPTER OUTLINE

The chapter outline of the present study was structured in the following steps:

- Formulating the recurring themes and emphasising the contribution of the present study based on a literature review (Chapter 2).
- Arguing the increased role of taxes in South Africa warranting further research based on an overview of tax reform and the calculation of after-tax values (Chapter 3 and Chapter 5).
- Formulating propositions on the tax effect on payout policies of JSE-listed companies (Chapter 3 and Chapter 5).
- Describing the research methodology of the present study (Chapter 4).
- The investigation of the tax effect on the payout policies of JSE-listed companies by considering: (i) the timing of dividend declarations in Chapter 6; (ii) the trend and composition of total payout in Chapter 7; and (iii) the relationship between investor tax preference parameters and payout methods in Chapter 8.
- Drawing a conclusion on the effect of investor-level tax reform on payout policies in Chapter 9.

The point of departure for this study was conducting a comprehensive literature review, followed by providing an overview of tax reform in South Africa. The research method is then described as a precursor to discussing research results. A detailed chapter outline, including research objectives, follows and concludes with an illustration of the interaction of the chapters, research objectives, and steps in Figure 1.2.

Chapter 2: Review of literature relating to the effect of taxes on payout policies

The review of literature departed from an overview of the major theories and explanations for the relevance of paying dividends in order to position the present study within these theories. The literature review then proceeded with an overview of the different tax systems applied in countries, followed by the literature relating to the effect of taxes on payout policies (in other countries and in South Africa), and concluded with a focus on literature relating to each of the research objectives of the present study. An overview of the different dividend tax systems applied in countries was included to highlight the need for country-specific research based on the variation in tax systems. The literature relating to findings of the effect of taxes in other developed and developing countries was synthesised in order to identify recurring themes to guide the present study. The survey of South African literature with findings on the effect of taxes in payout policy decisions was to illustrate the focus of previous South African studies on the period prior to the tax reforms of 2011 and to highlight the contribution of the present study to current South African literature. The literature relating to

each of the four research objectives of the present study (after-tax values, timing of dividend declarations, trend and composition of payout methods, and investor tax preference parameters) was provided in order to serve as a precursor to the research methodology described in Chapter 4. The literature review concludes with the recurring themes identified in literature and the implications of such recurring themes for the present study.

Chapter 3: Overview of tax reform in South Africa

An overview of investor-level tax reform relating to dividends, capital distributions, additional shares, and share repurchases in South Africa was provided to cover the target periods of the research objectives of the present study. A focus was placed on the following tax reforms: reforms to the definition of dividend; the introduction of dividends tax; increases in applicable tax rates; and the introduction and amendments to specific anti-avoidance provisions in the Income Tax Act (including tax reform relating to the unwinding of treasury shares structures). Chapter 3 concludes with a theoretical argument for the increased role of taxes due to tax reform and theoretical propositions on the effect of taxes on payout policies to be investigated further in Chapter 6 to Chapter 8. The overview of tax reform would also inform the basis for the calculation of after-tax values in Chapter 5.

Chapter 4: Research methodology

The research methodology of the study is described in Chapter 4 with specific reference to the overall aim and the relevant research objectives. The research design, population, target period, data collection, data analysis, and limitations of the study are elaborated on. Validity, reliability, and ethical considerations are also included in Chapter 4.

Chapter 5: After-tax values of different payout methods

Chapter 5 pertains to the first research objective of the study in which the nominal after-tax values of dividends, share repurchases, and additional shares for different categories of investors were calculated. The calculation enabled the tax impact over a period to be isolated and a tax differential to be calculated to quantify the magnitude of changes over the different periods. Chapter 5 formulates, in addition to Chapter 3, a further theoretical argument for the increased role of taxes due to tax reform which merits further investigation of the effect of investor-level tax reform in South Africa. The chapter concludes with propositions on the effect of taxes on payout policies, which are further investigated in Chapter 7 and Chapter 8.

Chapter 6: Timing of dividend declarations

Chapter 6 pertains to the second research objective of the study in which the timing of dividend declarations was investigated based on the introduction of dividends tax. The timing of economic transactions, which included the postponement or acceleration of dividends, was submitted as most clearly responsive to tax incentives (Hanlon & Hoopes, 2014; Slemrod, 1992). Chapter 6 concludes, based on findings, on support for a proposition submitted in Chapter 3.

Chapter 7: Trend and composition of total payout

Chapter 7 pertains to the third research objective of the study and related to the trend and composition of total payout. The objective of this chapter was two-fold. Firstly, to compile data on the total payout of companies selected which are not currently available on any commercial database. Secondly, to investigate the trend and composition of total payout before and after the introduction of dividends tax. Chapter 7 concludes, based on findings, on support for propositions submitted in Chapter 3 and Chapter 5.

Chapter 8: Investor tax preference parameters and payout methods

Chapter 8 pertains to the fourth research objective of the study and investigated the relationship between changes in payout methods and changes in investor tax preference parameters. Regression analyses were employed to investigate the relationship between changes in the payout methods and changes in investor tax preference parameters since the introduction of dividends tax. The trend and composition of total payout were also considered in Chapter 7 without reference to the shareholding of companies, whereas Chapter 8 expands on the investigation by including the shareholding of companies by means of investor tax preference parameters. Chapter 8 concludes, based on findings, on support for a proposition submitted in Chapter 5.

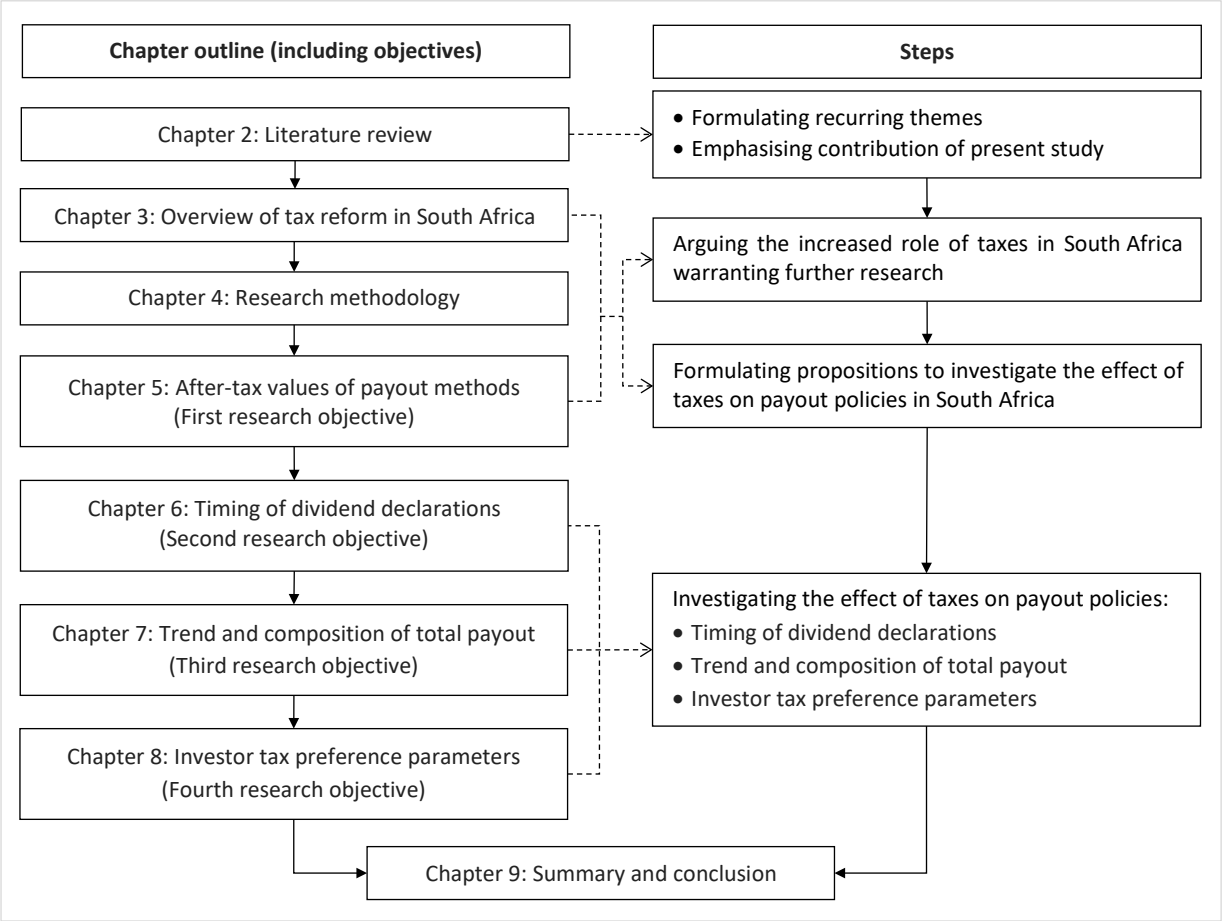
Chapter 9: Summary and conclusion

Chapter 9 provides a reconciliation of research objectives and results. Support, based on results, for each proposition is then summarised in order to conclude on the research question of the study. The research contribution and contribution to policy based on results are also provided to highlight the value of the present study conducted. Recommendations for future research are submitted on the basis of the limitations of the study and areas for further research identified.

The chapter outline (including the research objectives) and steps are illustrated in Figure 1.2.

Figure 1.2

Chapter outline, research objectives and steps



CHAPTER 2: REVIEW OF LITERATURE RELATING TO THE EFFECT OF TAXES ON PAYOUT POLICIES

2.1 BACKGROUND

Despite extensive theorising and empirical research, considerable debate continues on whether payout policy plays a role in achieving the aim to maximise investor wealth (Baker & Weigand, 2015). The early literature on dividend policy offers two opposing views on the relationship between cash dividends and company value (Baker & Weigand, 2015). One view argues that dividends are irrelevant for company value and possibly value-destroying (Miller & Modigliani, 1961). The other view considers dividends to be an important determinant of company value (Lintner, 1956).

The view of Miller and Modigliani (1961) is that, under perfect market conditions, payout policy would not affect company value as the only determinant of company value would be the present value of earnings, which is a function of investment decisions (Farre-Mensa et al., 2014, p. 93) and investment decisions would thus rank above payout decisions in driving company value. The assumptions of Miller and Modigliani (1961), however, rarely hold as the assumption of no taxes under perfect market conditions would not apply in practice (Farre-Mensa et al., 2014, p. 93). An understanding of the propositions of Miller and Modigliani (1961) still affords insights into why payout policy may affect company value (Farre-Mensa et al., 2014, p. 93). Should it be argued that payout policies would be irrelevant in driving company value if there were no taxes, then under conditions where taxes would apply, payout policy could be regarded as relevant concerning company value. The view of Lintner (1956) is that dividend decisions are relevant in affecting company value. Cash dividends are then also consistently important over time in shaping actual dividend policies based on the stability of past dividends and earnings. Contrary to the view of Miller and Modigliani (1961), payout decisions would not rank below investment decisions. According to Lintner (1956), taxes would also affect dividend decisions as higher taxes would lower net earnings reported, resulting in lower dividends.

The present study is grounded in the traditional theories of dividend relevance in which taxes represent a major market imperfection and support payout policies as relevant in determining a company's value. The lack of consensus on the motivations for paying dividends is described, by Black (1976), as the 'dividend puzzle' and remains unsolved despite much research and debate (Al-Najjar & Kilincarslan, 2019). Academic researchers tend to focus only on one piece of the dividend puzzle at a time by developing and considering empirical evidence to validate theories (Baker & Weigand, 2015).

Dividend relevance theories have been extensively researched within major theories and explanations, as summarised in Table 2.1.

Table 2.1

Major theories and explanations for dividend relevance

Theory	Description and implication	Empirical evidence
Bird-in-the-hand	Investors prefer the certainty of dividend payments to the possibility of substantially higher future capital gains.	Mixed
Taxes and tax clienteles	Investors prefer that companies retain cash instead of paying dividends when tax rates are higher on dividends than on long-term capital gains.	Mixed
Signalling	Company announcements of an increase (decrease) in dividend payout act as an indicator of the company possessing strong (weak) future prospects.	Mixed
Agency costs	Companies pay dividends to align the interests and mitigate the agency problems between managers and investors, by reducing the discretionary funds available to managers.	Mixed
Behavioural explanations	Investors prefer dividends for psychological reasons relating to self-control, mental accounting, hedonic editing, and regret as well as on the impact of age, income, and retirement status.	Mixed
Company life-cycle theory	The optimal dividend policy depends on the company's stage in its life cycle.	Generally supported
Catering theory	Managers cater to investor demand for dividends by paying dividends when investors prefer dividend-paying companies and not paying dividends when investors prefer non-dividend-paying companies.	Mixed

Note. Sourced and adapted from Baker and Weigand (2015, p. 133).

The empirical evidence in respect of the major theories and explanations for dividend relevance suggests mixed empirical support, save for the company life-cycle theory that is generally supported (Table 2.1). The dominance of one theory over another, as well as contradicting evidence in favour of (or against) a specific theory, are largely influenced by the testing environment (Jabbouri & Attar, 2018). Furthermore, the inconclusive empirical results offer ample room for further research on dividend policy (Jabbouri & Attar, 2018). The focus of the present study is on the taxes and tax clienteles theory which centres around the notion that the after-tax return of distributions shape investors' preference for specific payout methods and, in turn, investors would select a specific company based on their tax treatment and the company's payout policy (Baker et al., 2018). Investor tax clienteles could accordingly exist for both high and low dividend yields depending on the investors' tax positions (Baker et al., 2018). There is abundant literature on the tax and clientele effect theory,

which continues to attract the attention of investors, regulators and scholars, but the results remain inconclusive (Jabbouri & Attar, 2018). In deciding whether to repurchase shares or declare dividends, the management of a company should consider the sustainability of cash flows, the predictability of investment needs, and investor tax preferences (Correia et al., 2015 p. 16–22). Tax preference theory also forms part of the dividend relevance theories that claim dividend payments can have negative consequences for company value and investors' wealth (Al-Najjar & Kilincarslan, 2019, p. 207) and is submitted as related to the taxes and tax clienteles theory in Table 2.1. The present study is related to the tax preference theory of dividend relevance as the effect of investor-level tax reform on payout policies of companies (the timing and composition of payout) was investigated based on the after-tax receipts and tax preference of investors for payout methods. In terms of the tax preference theory, company value and investors' wealth could, in turn, also be affected by investor-level tax reform.

In considering the individual tax positions of investors, both the taxes on dividends and the capital gains taxes are considered when investigating tax effects (Geiler & Renneboog, 2015; Lie & Lie, 1999), because a payout method could result in a tax on dividends, tax on capital gains or even a combination of both. As investors in companies could be diverse, the taxes investors would pay could also differ, resulting in conflicting tax preferences of investors. The investigation of how companies respond when faced with such conflicting tax preferences of investors could be of interest to researchers and investors (Badenhorst, 2017, p. 103). The mixed results in respect of taxes and tax clienteles theory currently noted in literature also warrant further research (Ismail et al., 2018; Lamyaa & Karima, 2017).

The aim of the present study was to investigate whether the payout policies of selected JSE-listed companies were adjusted on the basis of investor-level tax reform. The effect of taxes on payout policies in other countries is well documented in literature (Booth & Zou, 2017; DeAngelo et al., 2009; Farre-Mensa et al. 2014; Lamyaa & Karima, 2017). Farre-Mensa et al. (2014) provided a comprehensive review of literature and the present study focuses on literature subsequent to that review. Shock to taxes (tax reform) is argued to be a preferred means of identifying tax effects in payout policy decisions when compared to other measures (Farre-Mensa et al., 2014, p. 99). Shock to taxes would include changes in tax regimes as well as changes in tax rates and affords the opportunity to study the effect of taxes on payout policies.

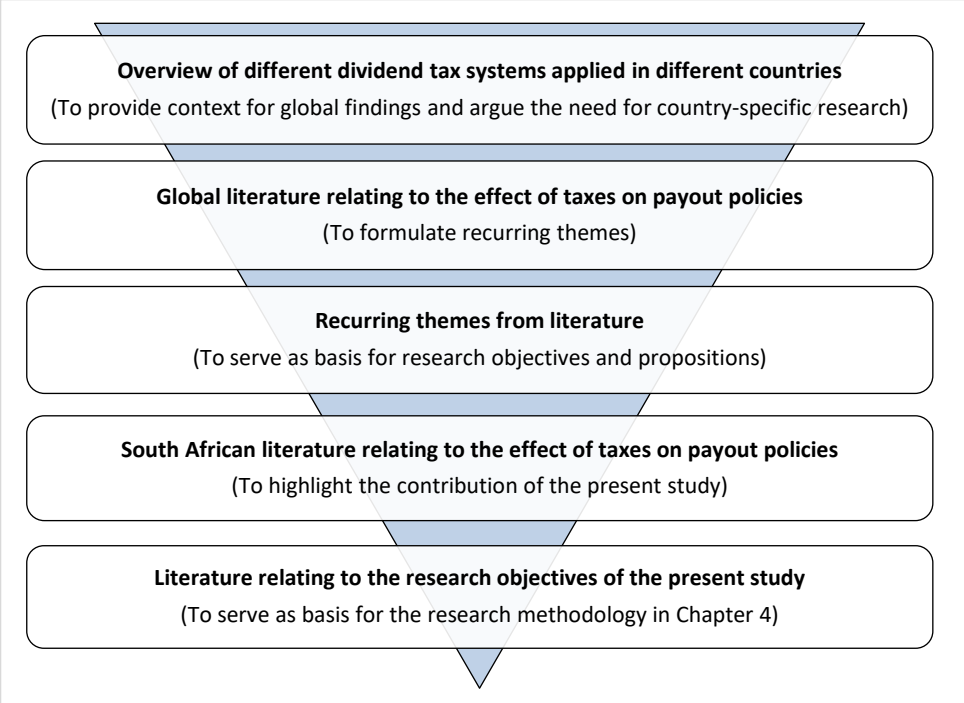
The literature review commenced by exploring the existing body of knowledge related to the effect of taxes on payout policies. An overview of the different dividend tax systems applied was, however, considered necessary prior to the summation of literature in order to provide context, as well as to elucidate the need for country-specific research based on the variation in tax systems. The literature

on the effect of payout policy has been characterised as having a strong emphasis on the USA and a lack of literature from other countries (Baker & Weigand, 2015; Geiler & Renneboog, 2015; Jacob & Jacob, 2013). The lack of literature from developing countries, in particular, has also been pointed out (Baker & Jabbouri, 2016; Jabbouri, 2016; Jabbouri & Attar, 2018). Factors that influence dividend policies could be similar between developed and emerging markets (Mans-Kemp & Viviers, 2015). Practices in emerging markets could also differ from those in developed countries in terms of corporate governance, taxes, and ownership structure (Lily et al., 2009). South Africa as a developing country and emerging market offer a unique research setting since it has a dualistic economy characterised by sophisticated financial and industrial sectors within an underdeveloped economy (Wesson et al., 2018). In structuring the literature in respect of the effect of taxes, a distinction between developed and developing countries (including emerging markets) was made. As literature on the effect of taxes predominantly emanates from the context of developed countries, such literature was considered as a starting point. Thereafter, literature in respect of selected developing countries was considered with a focus on recent literature and specific consideration of the four major emerging economies of Brazil, Russia, India, and China. These four emerging markets and South Africa form the economic grouping referred to as the BRICS countries.

The recurring themes emanating from literature were then identified and served as a theoretical basis to investigate the tax effect on payout policies in a South African context. The recurring themes accordingly served as the basis for research objectives and propositions of the present study. South African literature relating to the effect of taxes on payout policies were then summarised in order to accentuate the contribution of the present study in a South African context. The literature relating to the four research objectives of this study (after-tax values and payout methods, timing of dividends declarations, trend and composition of total payout, and investor tax preference parameters) served as basis for the research methodology described in Chapter 4. The literature review provided in this chapter is accordingly structured by commencing, in broad terms, with the different tax systems applied in different countries and ending with the specific literature relating to each of the research objectives of the present study. The structuring of the literature review, including the aim of each aspect, is illustrated in Figure 2.1.

Figure 2.1

Structuring of literature review



Adhering to the structure illustrated in Figure 2.1, the literature review in this chapter proceeds with an overview of different dividend tax systems applied in different countries

2.2 OVERVIEW OF THE DIFFERENT DIVIDEND TAX SYSTEMS APPLIED IN DIFFERENT COUNTRIES

Transferring insights on taxation between different countries could be a problematic endeavour as tax systems often differ significantly and, even within a single country, tax rules frequently change over time (Geiler & Renneboog, 2015, p. 179). Nonetheless, literature in respect of the effect of taxes in different countries is still considered in formulating consensus on findings on the effect of taxes and to emphasise differences between countries which merit the need for country-specific research. Including cross-country data has also been found to be beneficial as it would include tax variation and tax changes over time to improve the identification of tax effects in relation to other confounding factors specific to countries or tax reforms that influence prior single-country research (Jacob & Jacob, 2013, p. 1266). Providing an overview of the different dividend tax systems used to tax dividends in different countries was considered necessary as background to the interpretation of findings in different countries. If countries applied the same tax system, this would provide some basis to compare findings.

Harding and Marten (2018, p. 9) submitted that at company level most countries subjected net corporate income to tax with the subsequent distribution of the after-tax corporate income serving as basis for taxable income at the investor level. Countries that levied no tax at investor level were found to deem dividends as return on the investors' equity or afforded an allowance for corporate equity to be deducted from the tax payable by the company declaring the dividend (Harding & Marten, 2018, p. 9).

Tax systems in countries could vary in the treatment of distributions at company level as well as at investor level. Furthermore, the significance of taxing dividends, as well as the potential of tax-driven clientele effects in both classical and imputation tax systems, has been suggested in literature (Balachandran et al., 2017, p. 154). The classical (or traditional) tax system regards the company and investor as separate taxpayers with the subsequent distribution considered for tax at both company level and investor level, resulting in possible double taxation (Becker et al., 2013).

An imputation tax system also entails both company-level and investor-level taxes but allows an investor to deduct a portion of the taxes paid by the company on declaration of the dividends and consequently provides double taxation relief. A final withholding tax system would also involve both company-level and investor-level taxes but would provide some relief from double taxation by reducing the rate at which investor-level taxes are withheld (Harding & Marten, 2018, p. 8). As the classical imputation and final withholding tax system involve taxes at investor level, the potential for tax-driven clienteles could arise. A tax system which only focuses on taxes at company level, for example a dividend tax exemption system, could not result in investor-level taxes and no investor tax clienteles would arise.

The major dividend tax systems are presented in Table 2.2, with examples of countries applying such tax systems. The classification of dividend tax systems of other countries is based on literature consulted during this study. The classification of the dividend tax system in South Africa was based on the dividends tax which was introduced on 1 April 2012.

Table 2.2

Dividend tax systems applied by countries

Tax System	Definition	Country
Classical (or traditional)	The company and investors are regarded as separate entities and are taxed separately. Amounts distributed are taxed at company level and are also subjected to tax at an investor level, resulting in double taxation.	Developed: United Kingdom, Sweden & Switzerland Developing: China
Modified classical (or investor relief)	This system reduces the full economic burden of double taxation that applies under a classical system. Relief can be provided at investor level by reducing tax rates on dividends received or only taxing a proportion of dividend income.	Developed: USA & Finland Developing: Turkey
Final withholding	Under this approach, the same element of double taxation applies as under a classical system, with amounts distributed taxed at company level. The company (or another withholding agent) would then withhold taxes on behalf of the investor, resulting in no further tax being payable at investor level. The impact of double taxation is generally reduced as a result of withholding taxes being assessed separately from other income at a lower rate than the tax rate on other income.	Developed: Poland & Greece Developing: South Africa, Sri Lanka, India & Ghana
Dividend tax exemption	Dividend income is generally not taxed. Tax is charged on company's profit only, thus it is only taxed at company level. This is also known as a single-tier or a one-tier tax system.	Developed: Singapore Developing: Brazil & Malaysia
Full imputation Partial imputation	Taxes paid by a company are considered as paid on behalf of investors. Company earnings and investor dividends regarded as derived from the same source of income and as a result integrated to alleviate double taxation. Imputation tax system usually grants investors an imputation credit for paid corporate income tax. An investor's personal income taxes could as a result be reduced by the imputation credit (a credit for taxes paid by the company declaring the dividends is accordingly afforded). Full and partial imputation systems are distinguished by the nature of the imputation credit, which may be the full corporate tax or only a fraction thereof. An imputation tax system is also referred to as a company paying franked dividends. In cases of partial imputation, a company would pay franked as well as unfranked dividends.	Developed: Australia, Canada & New Zealand Developing: Mexico Developing: Russia & Taiwan

Note. Sourced and adapted from Becker et al. (2013), Harding and Marten (2018), Ismail et al. (2018), and Pattenden and Twite (2008). Countries included as examples based on literature consulted.

Evident from Table 2.2 is the variation in the tax systems applied, which may imply that findings in respect of literature are not transferable between countries with different tax systems. The literature considered in subsequent sections should be interpreted in the context of the tax system applied in the country in which such findings are submitted. Based on the variation in tax systems the need to

perform country-specific research is warranted as the setting in a country with tax reform could be different from that of studies in other countries.

The regulation of dividends in a country could also affect inferences on the effect of taxes as regulation could explain dividend declaration regardless of the dividend tax system. Corporate law in Brazil requires of public companies to distribute a percentage of the annual profits, typically 25%, as dividends – which could explain why the average dividend yield in Brazil is higher than in other countries (Martins & Novaes, 2012). Currently, there are only five civil-law countries (Brazil, Chile, Colombia, Greece, and Venezuela) noted as adopting such mandatory dividend rules, despite the enforceability by these countries of such rules being questioned (Martins & Novaes, 2012). One of the share exchanges in China has also issued new guidelines, in January 2013, considered the world's first comply-or-explain regulations which recommended, but did not mandate, a minimum 30% dividend payout ratio for companies with positive earnings or an explanation of the use of funds if not distributed (He & Li, 2018). Specific dividend regulation should be noted in considering literature as these regulations could explain dividend policy regardless of possible tax effects.

This chapter now proceeds with the literature in respect of developed countries and selected developing countries with the tax systems being applied in different countries as context.

2.3 THE EFFECT OF TAXES ON PAYOUT POLICIES IN DEVELOPED COUNTRIES

The study of Farre-Mensa et al. (2014) provides an annual review of finance literature with a focus on the two decades leading up to 2014, predominantly relating to developed countries and including specific consideration of the effect of tax on payout policies in a USA context. In the USA context perhaps the most significant change in tax regime relative to taxation on dividends studies in literature has been the Jobs and Growth Tax Relief Reconciliation Act, which resulted in the reduction of the dividends tax rate during 2003 (Farre-Mensa et al., 2014, p. 100). The Jobs and Growth Tax Relief Reconciliation Act applied retroactively from 1 January 2003 and first applied to taxes filed for the 2003 tax year and resulted in a reduction of the maximum tax rate on dividends from 38% to 15% – the maximum rate on dividends being reduced to equal capital gains rate. The main objective of the Jobs and Growth Tax Relief Reconciliation Act was to give the economy a boost by increasing investor disposable income, resulting in increases in the supply of dividends being the focus in USA literature since 2003 (Farre-Mensa et al., 2014, p. 100).

Brav et al. (2008) submitted that companies in the USA could increase dividends in response to the 2003 dividends tax rate reduction but argued the role as being of second-order importance based on their survey of financial executives in the USA. Brav et al. (2008) recognised that their study also more closely represented the supply side of dividends (views of managers) and not the demand side of dividends (views of investors), as considered by Baker and Wurgler (2004). Several other studies also link corporate payout policy to tax considerations, in particular that companies seem to alter the mix between dividends and share repurchases in response to relative taxation (Graham, 2013). Moser (2007) found that a dividend tax penalty (difference in the individual investor tax rates of dividend income and capital gain) affected a company's choice between distributing funds to investors through dividends or share repurchases. In periods in which the dividend tax penalty increases, companies are more likely to distribute funds to investors through share repurchases as opposed to dividends (Moser, 2007). Furthermore, the relationship between the dividend tax penalty and corporate payout choice is affected by the types of investors who own shares in the company. Chazi et al. (2018) developed and validated new robust measures of investors' preference for regular dividends versus regular share repurchases, employing payout-form premium (discount) measures. These researchers found that the number of USA companies that pay cash dividends regularly continued to outnumber the ones that purchase their shares regularly and that managers also cater to investors' preference for payout form (Chazi et al., 2018). Literature in a USA context suggests a tax effect on payout policies.

Pattenden and Twite (2008) examined changes in corporate dividend policy around the introduction of an imputation tax system in Australia. In order to infer the existence of tax preferences for different distributions, the after-all tax value of one Australian dollar distribution was calculated for the highest personal taxpayer, a corporate investor, and a pension fund. Dividend initiations, dividend payout measures (gross, regular, and net dividend payout ratios) and the use of dividend reinvestment plans were found to have increased subsequent to the introduction of dividend imputation, consistent with the tax preference for distributions of imputation credit (credit for taxes paid by the company declaring the dividends). Balachandran et al. (2017) subsequently also considered, in the Australian context, the effect of insider share ownership and institutional ownership on the dividend decision and how these effects vary between imputation (paying franked dividends) and classical (paying unfranked dividends) tax systems. Companies in an imputation environment were found to be more likely to pay dividends with higher payout ratios, demonstrating the significance of the imputation system upon dividend policy. Insider ownership was also found to be positively related to dividend decisions under both a classical (traditional) and imputation tax system. Australian companies with

higher foreign institutional ownership were further found to be less likely to pay dividends and have lower payout ratios (Balachandran et al., 2017). Literature in the Australian context suggests a tax effect on payout policies.

Korkeamaki et al. (2010) explored payout policies and ownership structures around a major tax reform that took place in Finland in 2004 which adversely affected the majority of the five largest investors. Finnish companies were found to have increased dividends during the last year of the old tax system (when dividends were still untaxed at the investor level), confirming that dividend policies were adjusted based on the changed tax incentives of their largest investors. Literature in the Finnish context suggests a tax effect on payout policies.

Bird (2013) considered the effect of Canadian tax changes during 2006 which significantly decreased the tax on dividends for taxable investors but left the position of tax-exempt investors (including other corporations and foreign investors) unaffected. Bird (2013) found evidence of a small positive effect on net dividend initiations as a result of tax reform suggesting a weak effect of taxes on payout policies. Deslandes et al. (2015) also examined the impact of the 2006 reduction in dividend tax on dividends and share repurchases in Canadian listed companies from 2003 to 2008. Companies in which investors benefited from the reduced tax rate were found to have increased their dividend payout more than other companies. The tax reform considered was found not to have a negative effect on share repurchases as a distribution method as investors subject to dividend taxes were more likely to use a combination of distribution methods (not solely share repurchases, dividends, or no payout). Investors' tax preferences were submitted as an important factor, contrary to the finding of Bird (2013), for companies to consider when designing payout distribution policies in Canada (Deslandes et al., 2015, p. 3). Literature in the Canadian context provided mixed results in respect of the tax effect on payout policies.

Geiler and Renneboog (2015) submitted empirical evidence in respect of taxes, earnings payout, and the payout-channel choice based on tax reforms in the United Kingdom (UK) under an imputation system. The authors identified investors' tax-driven preferences for a specific payout channel but concluded that companies do not cater to the tax preferences of their investors. Literature in the UK context does not confirm a tax effect on payout policies.

Jansson and Janesiripanich (2018) investigated whether Swedish investors had stronger preferences for dividends or share repurchases. Swedish investors were found to have preferred dividends to capital gains from share repurchases despite the rate of both payout methods being the same.

The fact that there is no tax benefit in respect of share repurchases in Sweden could have resulted in less interest in share repurchases among Swedish investors (Jansson & Janesiripanich, 2018, p. 53). Holmen et al. (2008), also in the Swedish context, provided evidence that insider investors with sufficient power could influence the dividends paid by companies to reduce their personal tax burden. In particular, Holmen et al. (2008) provided evidence based on the actual effective tax rate of investors in their study, whereas most other researchers made assumptions regarding individuals' personal tax rates. Literature in the Swedish context confirmed a tax effect on payout policies.

The preceding studies related to country-specific discussions, while other studies contained multi-country analyses which included developed countries among their samples. Jacob and Jacob (2013) compiled a comprehensive international dividend and capital gains tax data set to study tax-based explanations of corporate payout for a panel of 6 035 companies from 25 countries for the period 1990 to 2008. The 25 countries comprised Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Japan, Korea (South), Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Spain, Sweden, Switzerland, UK, and USA. Their study included tax reforms and tax rate changes relating to the different countries included in their study. The 25 countries studied by the authors consisted predominantly of developed countries in respect of which the authors found that dividend and capital gains taxation were first-order determinants of corporate payout internationally. These findings contradict the conclusion of Brav et al. (2008) that taxes, in the context of the USA, are of second-order importance.

Amiram et al. (2016), in the context of the elimination of imputation systems by European countries in different years, identified and quantified the extent to which investor-level taxes influence the manager's decision to engage in corporate tax avoidance. The authors found that investor-level taxes incentivise managers to engage in corporate tax avoidance. As expected, results were also more pronounced in closely held companies, companies with lower foreign income, and companies with higher dividend payout (Amiram et al., 2016).

The review of literature in respect of developed countries indicated a tax effect on payout policies. Only two studies in developed countries, considered in the literature review of the present study, submitted expectations on a possible tax effect but found weak or no tax effect on payout policies (Bird, 2013; Geiler & Renneboog, 2015). The aforementioned two studies considered the position from a developed country perspective and pointed out the opportunity for country-specific research as well as specific aspects for investigation in research. The focus in the next section of this chapter is on the effect of taxes in developing countries.

2.4 THE EFFECT OF TAXES ON PAYOUT POLICIES IN DEVELOPING COUNTRIES

In the context of developing countries, a gap in literature pertaining to the effect of taxes on payout policies in sub-Saharan Africa has been identified (Arko et al., 2014). Amidu and Abor (2006) examined the determinants of dividend payout ratios of listed companies in Ghana and proposed that taxes affected dividend policy. Arko et al. (2014) also subsequently found a relationship between taxes and corporate dividend policy in the Ghanaian context. Literature in the context of Ghana suggests a tax effect on payout policies. This finding is in respect of Ghana, a developing country, which has the same tax system as South Africa under the dividends tax regime (Table 2.2).

Khan et al. (2017) analysed the impact of capital gains tax on dividend policy among companies listed in Pakistan. Pakistan provided a unique setting as the country had an idiosyncratic tax system in which capital gains were taxed for the first time in July 2010, before which capital gains were tax-free while taxation on dividends was up to 10% prior to July 2010 (Khan et al., 2017). The study expected an increase in the dividend payment after the introduction of capital gains tax in July 2010 but found that the introduction of capital gains tax had no effect on the dividend payments. The authors submitted, in line with previous literature, that investors might prefer periodic payments of dividends on their shares rather than capital gains resulting in the tax effect being less important. Another plausible explanation could also be that the majority of companies in their study were family- and insiders-controlled in Pakistan and such investors of companies extract rents in forms other than dividends from companies, resulting in capital gains tax being less important (Khan et al., 2017). Literature in the context of Pakistan does not suggest a tax effect on payout policies.

Chuang et al. (2018) investigated whether a reduction of tax credits under the imputation system in Taiwan during 2015 influenced dividend payout. The study found that dividend payout ratios decreased after such tax reform, indicating that companies used this tax reform to enact tax planning for investors (Chuang et al., 2018). The tax system in Taiwan changed from a full imputation to a partial imputation system (Table 2.2) after the reduction in credits during 2015. Literature in the context of Taiwan suggests a tax effect on payout policies.

Ismail et al. (2018) examined company dividend payouts based on change from a full imputation system to a single-tier tax system in Malaysia. Both regular and special dividends[4] were found to have significantly increased during the transitional period; however, there was no significant increase or

[4] Special dividends can be distinguished from regular (or ordinary) dividends based on frequency of payment. Owing to the different labelling of special dividends, investors might perceive special dividends as once-off payments and, as a result, not expect a similar payment during the next period (Andres et al., 2015).

decrease in dividend payouts once the tax reform had become effective. Furthermore, the authors also reported a link between company performance in terms of return on equity and dividend payouts during the transitional period. Best-performing companies were noted as having significantly increased regular dividends, while moderate-performing companies were noted as having significantly increased special dividends, and poor-performing companies indicated an insignificant effect on dividend payout (Ismail et al., 2018, p. 4).

Dewasiri et al. (2019) considered the determinants of dividend policy in Sri Lanka, an emerging market and developing country, and rejected the supposition that tax had an impact on dividend decisions and that tax had a negative impact on dividend yield. The taxes considered by Dewasiri et al. (2019) were measured by dividing corporate tax by net profit before tax, and not by investor-level taxes as contemplated in the present study. This finding of Dewasiri et al. (2019) is thus in respect of a developing country that has the same tax system as South Africa (Table 2.2).

Findings in literature on other developing countries indicate a tax effect in most studies. The focus is subsequently turned to literature from other BRICS countries (Brazil, Russia, India, and China) representing the economic grouping of major emerging economies which also include South Africa.

In Brazil, Zagonel et al. (2018, p. 319) considered changes in tax legislation for the period 1986 to 2011 and the effect thereof on corporate dividend policies. A withholding tax on distributions (investor-level taxes) was introduced in Brazil from 1 January 1994 at a rate of 15% withholding tax with relief also provided to companies (company-level taxes) for withholding taxes retained. Tax reform in Brazil from 1 January 1996 resulted in the removal of the withholding taxes on dividends (no investor-level taxes) and the relief provided to companies was therefore also removed as no withholding taxes are retained (Zagonel et al., 2018). Tax legislation in Brazil was found to have a significant influence on dividend payout ratios. Changes in regulation also reduced agency problems among investors of companies. Brazil as a country provided a unique setting in terms of a legal framework of corporate law which allows companies to issue up to two-thirds of total equity in non-voting preference shares, which resulted in preference dividends being included in their study. Literature in the context of Brazil suggests a tax effect on payout policies.

In Russia, a ‘flat tax’ reform during 2001 established a single marginal rate of personal income tax at the low level of 13% and an increase in both the maximum corporate tax rate and the tax on dividends (Ivanova et al., 2005). The first adoption of imputation during 2001, however, reduced the effective tax rate on distributed corporate earnings (Ivanova et al., 2005). In Russia, dividend regulation is also

in use with state-owned companies required to distribute at least 25% of net profit as dividends, with some exemption from this obligation applying (Belousova et al., 2016, p. 47). Vanteeva and Hickson (2018) considered the dividend payout pattern for Russian corporations from 1998 to 2006. Dividend policies were found not to conform to any of the main dividend payout theories (seemingly independent of company earnings, size, growth opportunities, and capital structure), suggesting that dividend policies in non-market economies (where goods or services are not traded freely) may be driven by non-traditional determinants. Only utility companies, partly owned by the state and subject to price regulation, were found to be inclined to pay consistent dividends. The only tax effect noted was the tax break in respect of debt financing. Literature in the context of Russia did not provide any evidence of a tax effect on payout policies.

In India, Ganesh and Suresh (2018) analysed the pattern of dividend payout ratios of the companies listed for each category of capitalisation such as large cap, mid cap and small cap during the period of 2014 to 2016. A positive relationship between tax and dividends paid was submitted for large cap and mid cap sectors. A negative relationship between tax and dividends for the small cap sector was found based on tax exemptions in the small cap sector, which attract investors that are sensitive to tax increases because of low profit margins (Ganesh & Suresh, 2018, p. 1532). Labhane (2017) examined the empirical determinants of dividend payout policy for companies listed in India from 1995 to 2013 and also found that dividend distribution tax significantly affected the probability of companies to pay dividends. In India a dividend distribution tax of 15% is levied with the income from dividends being tax free in the hands of investors and the short-term capital gain being taxable, whereas the long-term capital gain is tax exempt (Labhane, 2017). Literature in the context of India suggests a tax effect on payout policies. This finding is in respect of a developing country that has the same tax system as South Africa under the dividends tax regime (Table 2.2).

In China, Wang and Guo (2011) considered whether the dividend tax reduction in 2005 resulted in an increase in dividends. The dividend tax reduction was found to have led companies to increase their dividend payments and opportunistic behaviour occurred where companies with higher proportions of shares held by executives were more likely to increase their dividend payments (Wang & Guo, 2011, p. 208). The explicit objectives of the dividend tax reduction in China were, however, to increase the likelihood of companies making dividend payments, to ease the conflict of interest between large and minority investors, to protect the interests of minority investors, and to encourage public investment (Wang & Guo, 2011). Subsequent to the dividends tax reduction in 2005, dividend tax reform in 2012 was announced which applies to individual investors and determines the applicable dividend tax rates based on the period for which shares are held. Individual investors holding shares for a longer period

would be subjected to a lower dividends tax rate, whereas holding shares for a shorter period would result in a higher dividend tax rate (Li et al., 2017). Based on the tax reform, it was found that companies facing a reduction (or increase) in the dividend tax rates of individual investors are more (or less) likely to increase dividend payout indicative of a tax effect on payout policies (Li et al., 2017). Jiang et al. (2019) also considered the effect of the 2012 tax reform and found that reducing the internal cash flows triggered by increasing cash dividend payouts to cater to investors' tax preferences was an important channel through which the dividend taxes of investors hinder corporate innovation. Findings in the context of China thus provided support of taxes affecting payout policies.

Based on the aforementioned literature from developing countries the effect of taxes in payout policy decisions appears to be more pronounced than the initial mixed results in respect of developed countries. The surveyed literature from other developing countries with a similar dividends tax regime to that of South Africa (namely Ghana and India) suggested a tax effect on payout policies. The influence of institutional investors on dividend payouts in emerging markets has also received considerable attention in literature (Jacob & Lukose, 2018). The surveyed literature in respect of developing countries focused mainly on dividend payouts and not payouts other than dividends, such as share repurchases, which have enjoyed more attention in literature pertaining to developed countries. Evidence from South Africa as a developing country and emerging market could contribute to the literature in terms of the effect of taxes on the payout decisions of companies with reference to the total payout. This chapter now proceeds with the formulation of recurring themes based on the literature considered.

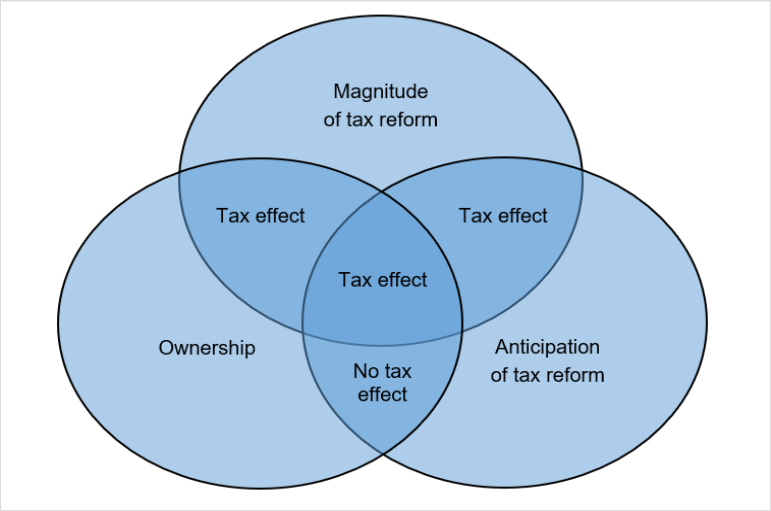
2.5 RECURRING THEMES BASED ON LITERATURE

An overview of the literature was performed in an attempt to describe the characteristics of the literature (Grant & Booth, 2009). The characteristics described were the broad categories of recurring themes in which literature could be grouped. Due to the non-systematic nature of the overview these recurring themes are not submitted as comprehensive, but rather as broad categories of recurring themes based on the literature reviewed in the present study.

Based on the literature surveyed, three recurring themes were identified: (i) the magnitude of tax reform; (ii) the anticipation of tax reform; and (iii) the effect of ownership. The submission is that the three themes are not mutually exclusive but rather converge, resulting in an interplay of the tax effect on payout policy, as illustrated in Figure 2.2.

Figure 2.2

Recurring themes based on literature



The combination of the magnitude of tax reform, the anticipation of such tax reform, and ownership have been found to explain a tax effect on payout policies (Hanlon & Hoopes, 2014; Korkeamaki et al., 2010; Peyer & Vermaelen, 2016). The magnitude of tax reform in combination with ownership has been found to result in a tax effect without an explicit consideration of the anticipation of the tax reform (Geiler & Renneboog, 2015; Moser, 2007). The magnitude of tax reform and the anticipation thereof, without consideration of ownership, was only included in one study (Sundvik, 2017) based on the literature consulted. The only interaction not evident in literature consulted was the interaction between the anticipation of tax reform and ownership, excluding the magnitude of tax reform. The magnitude of tax reform is submitted as a prerequisite for a tax effect to be noted, resulting in no tax effect being noted in respect of ownership and anticipation of tax reform in the absence of the magnitude of tax reform. Each theme is elaborated on in the section which follows.

2.5.1 Magnitude of tax reform

In line with an intuitive approach, the magnitude of the tax reform could affect the findings in respect of the effect of taxes. The magnitude refers to the extent of the tax reform based on the broadening or narrowing of the tax base by means of a change in tax regime or a change in the applicable tax rates. Increases or decreases in tax rates as a result of tax reform could be indicated as significant or major in a study, which then serves as a basis for an expected tax effect on payout policy to be investigated (Deslandes et al., 2015). The consideration of changes in tax rates over time also informed the calculation of after-tax values. After-tax values, in turn, can be used to formulate propositions on the effect of taxes on payout policies (Geiler & Renneboog, 2015; Pattenden & Twite, 2008) and serves

as an indication of the magnitude of tax reform. Apart from changes in tax rates, the magnitude of tax reform could also be expressed as significant or major based on a change in a tax system applied in a country (Ismail et al., 2018; Korkeamaki et al., 2010). Despite the fact that the change in tax system could also entail possible changes in tax rates, the magnitude of the tax reform is then argued solely on the fact that a tax system has changed, resulting in an opportunity to investigate the effect of taxes. Shock to taxes (tax reform) is argued as a preferred means of identifying tax effects in payout policy decisions (Farre-Mensa et al., 2014, p. 99) and could be indicative of the magnitude of tax reform.

2.5.2 Anticipation of tax reform

Tax reform which is announced and subsequently becomes effective results in anticipation of the introduction of the tax reform. The extent to which companies anticipate tax reforms could result in the postponement or acceleration of dividend payments (Farre-Mensa et al., 2014, p. 100). Anticipated tax reforms could allow companies to shift dividend payments from high-tax periods to low-tax periods by means of acceleration or postponement of dividends (Alstadsæter & Fjærli, 2009; Hanlon & Hoopes, 2014; Korinek & Stiglitz, 2009). Perceived gains as a result of tax reform of a transitory nature could also be realised on behalf of investors using special dividends or share repurchases (Hanlon et al., 2019). Alternative responses to anticipated tax reforms also include changes in the fiscal year-ends and dividend-based earnings management (Sundvik, 2017).

2.5.3 Ownership

Allen et al. (2000) noted that there are groups of investors who are taxed differently and have different incentives for becoming informed about corporate affairs. Accordingly, the ownership hypothesis suggests that the behaviour of companies around expected tax reform is explained by the ownership structure of the companies (Peyer & Vermaelen, 2016, p. 138). The presence of a large or dominant investor, in particular, could elicit specific responses by companies in cases of tax reform (Booth & Zhou, 2017, p. 9; Korkeamaki et al., 2010). Higher insider ownership (directors and officers) has been found to elicit a more notable response to taxes if the tax rate of dividends and capital gains differ (Jacob & Jacob, 2013). As senior managerial share ownership increases and the dividend tax penalty increases, companies could also be more likely to make distributions to investors in the form of share repurchases (Moser, 2007). Where institutional investors are the majority investors, a tax-based theory would merit a better argument to explain a positive relationship between dividend distribution and ownership concentration because of dividend preference (Short et al., 2002). If tax preferences are ignored, an institutional investor's influence over dividend policy could vary based on the extent of monitoring performed by institutions and the level of insider ownership (Krupa & Utke, 2020, p. 4). Tax sensitive insiders (managerial ownership) could insist on the acceleration of a payout method in

order to minimise their tax liability, in which case a tax-insensitive dedicated institutional investor could monitor the company's payout policy and mitigate potential self-serving behaviour by the insiders (Krupa & Utke, 2020, p. 34). The consideration of institutional investors is submitted as warranted – not only in respect of the possible dividend preferences of institutional investors but also owing to their monitoring role. The monitoring role of institutional investors could prevent payout methods that are motivated by the tax preference of certain investors rather than the best interest of all investors. Institutional ownership could also be relevant in considering a choice between distributing dividends and share repurchases based on the tax status of the institutional and differential tax rates of dividends and capital gains (Moser, 2007). Desai and Jin (2011) argue that institutional investors elect companies in dividend clienteles and that companies alter dividend policy in response to the tax preferences of these institutional investors.

As regards the effect that ownership concentration has on dividend policy, two opposing hypotheses emerged from literature, being the monitoring hypothesis and the rent extraction hypothesis (Harada & Nguyen, 2011). Ownership concentration could be expected to be associated with higher payout under the monitoring hypothesis, which posits that dividend payments reduce agency costs by removing excess cash from management control (Harada & Nguyen, 2011, p. 376). However, ownership concentration could be expected to be associated with lower payout under the rent extraction hypothesis, which posits that large shareholders prefer to extract private benefits of control rather than receive dividends that equally benefit all shareholders (Harada & Nguyen, 2011, p. 376). Ownership concentration could be associated with either a higher or lower dividend payout, depending on the opposing hypotheses.

The Herfindahl Ownership Concentration Index (hereafter referred to as 'Herfindahl index') has been employed as a variable that depicts ownership concentration based on the shareholding of the top five shareholders in companies (Gonzalez et al., 2017; Harada & Nguyen, 2011). The Herfindahl index is calculated per company as the square of percentage shareholding held by the top five shareholders (Harada & Nguyen, 2011). Despite not reflecting the relative voting power of shareholders, the Herfindahl index succeeds in capturing the dispersion of ownership across shareholders and the relative power of a group of shareholders (Goergen & Renneboog, 2001). High ownership concentration companies are those whose Herfindahl index is above the median value of the index for all companies (Arora & Srivastava, 2019). Low ownership concentration companies are those whose Herfindahl index is less than the median value of the index for all companies (Arora & Srivastava, 2019).

Apart from the Herfindahl index as a measure of ownership concentration, the extent of holdings by the largest shareholders in companies could also serve as an indicator of ownership concentration. Large shareholders could exert pressure on a company to adopt a dividend policy that reduces the private consumption by management; however, they could also enforce a dividend policy that maximises their private benefit at the expense of minority shareholders (Truong & Heaney, 2007, p. 668). In order to better understand dividend policy, it is important to analyse the relationship that exists between large shareholders and dividend policy (Truong & Heaney, 2007, p. 668). The fact that the largest shareholding, including the identity of the largest shareholder, and dividend payout are related has been submitted as apparent in the literature (Truong & Heaney, 2007). In this regard, it has been found that companies are more likely to pay dividends when profitability is high, debt is low, and investment opportunities are limited, or when the largest shareholder is not an insider (Truong & Heaney, 2007). The literature has found that companies take the tax preferences of large block holders into account when defining their payout policy (Trinchera, 2012, p. 253). The presence of a large block of shareholders has also been found to elicit specific responses by companies in cases of tax reform, based on the argument that the presence of a large block of owners makes companies more likely to adjust their dividend policies in order to reflect the preferences of such investors (Korkeamaki et al., 2010, p. 573). The tax preference of block holders has, however, also been noted not to trump the tax preferences of minority shareholders in all instances (Trinchera, 2012, p. 253). The consideration of the tax preference of minority shareholders was found to be dependent on the degree of shareholder protection with significantly higher consideration in high-protection countries than low-protection countries (Trinchera, 2012, p. 253). Despite large shareholders being submitted as being in a position to affect payout policies in line with their tax preference, the position of minority shareholders would not by default have no impact on payout policies.

Ownership has also been submitted as a reason why the effect of taxes in corporate decisions could be less pronounced than expected. As agency issues and shareholder conflicts increase, the tax preferences of owners have a significantly smaller impact on payout (Jacob & Michaely, 2017). Coordination among owners, heterogeneity in tax preferences, and diverging objectives between managers and owners could reduce the dividend-tax sensitivity (Jacob & Michaely, 2017). The connection between companies' dividend policy and the tax of their owners could also be irrelevant if owners with varying tax burdens engage in tax-driven trading around the ex-dividend day (Peyer & Vermaelen, 2016). An argument that ownership could also mute the tax effect on payout policies is therefore recognised and was included for consideration in the present study.

The theme of ownership is an important consideration based on the literature considered and, in combination with the two other recurring themes, serves as theoretical basis of the present study.

2.6 THE EFFECT OF TAXES ON PAYOUT POLICIES IN SOUTH AFRICA

Literature relating to South Africa could add to the existing literature on the effect of taxes on the payout policies predominantly arising from the USA, based on specific differences between the South African and USA contexts. In the USA context, the most significant change in tax regime studied relates to a dividends tax rate reduction in terms of the Jobs and Growth Tax Relief Reconciliation Act (Farre-Mensa et al., 2014, p. 100). In the South African context, the tax reform was a change in tax regime and consecutive increases in applicable tax rates (a detailed discussion of tax reform in South Africa is provided in Chapter 3). In the USA context, the tax reform resulted in dividends and capital gains being taxed at the same rate (Farre-Mensa et al., 2014, p. 100), while in South Africa dividends and capital gains are not taxed at the same rate. Brav et al. (2005) conducted a survey of financial executives in the USA and concluded that tax is a second-order determinant in the choice between dividends and share repurchases. The fact that dividends and capital gains are taxed at different rates in South Africa could result in the effect of taxes being more pronounced in decisions between payout methods.

South African literature surveyed with findings or results on the effect of taxes on payout policy is summarised in Table 2.3. Literature surveyed is sorted in ascending order of target period to illustrate the focus of the literature on the secondary tax on companies (STC) regime or dividends tax regime. The contribution of the present study in respect of surveyed South African literature is also specifically indicated in Table 2.3.

Table 2.3

South African literature surveyed with findings on the effect of taxes on payout policy

Target period	Study	Findings of study
1990–1995	Graham (1999)	The author focused on the introduction of STC during 1993 and investigated retention ratios (retained earnings as a percentage of total earnings) for selected JSE-listed companies before and after the introduction of STC. The author concluded that increased retention ratios from 1993 supported the objective of STC to encourage companies to retain a larger proportion of earnings to finance investment opportunities instead of distributing earnings to investors. The study concluded that the increased retention ratios could be attributed to companies reducing dividend payments or rather opting for capitalisation issues.
1997–2006	Abor & Fiador (2013)	The authors included South African listed companies as part of their examination of the effect of corporate governance on companies' dividend payout policy in sub-Saharan Africa. Taxation was included as a control variable in the study and South Africa, at the time, was the only sub-Saharan African country considered which did not have a withholding tax in respect of dividends. The study found that taxation did not establish any significant effect on the payout policies of South African companies.
1998–2007	Bester (2008)	The author conducted an analysis of the investor distribution activities of 121 industrial companies listed on the JSE. Based on interpretation rather than empirical analysis, the author concluded that tax implications (whether STC can be avoided or not) and share price valuation remained the dominant determinants. Furthermore, that investor diversity, dividend preferences, size of distribution, and broad-based black economic empowerment requirements had significant influences on the choice of distribution method in the South African context. Dividends paid out of share premium (capital distributions) were noted as the favourite distribution method over the target period and share repurchases were indicated as having a very small STC advantage over cash dividends. The present study focused on the period under the dividends tax regime in order to investigate the effect of taxes as a result of tax reform and expanded on Bester's (2008) findings under the STC regime.
1999–2004	Chivaka et al. (2009)	Tax efficiencies (the fact that dividends are taxed differently from share repurchases) were not acknowledged as a reason for share repurchases of JSE-listed companies based on the survey of directors. The authors concluded that directors might, however, be reluctant to state tax efficiency as a reason for a share repurchase owing to the misalignment of the interests of the South African Revenue Service (SARS) and the investors or directors of the company. By publicly stating the reason for a share repurchase as tax efficiency, companies may prompt SARS to investigate the treatment of repurchases by both the company and the respective investors for tax purposes.

Target period	Study	Findings of study
1999–2009	Wesson & Hamman (2012)	The authors examined the repurchase by holding companies of treasury shares held by subsidiaries to ascertain: (i) whether these repurchases were a regular transaction conducted by JSE-listed companies; (ii) whether companies undertaking these repurchase transactions complied with the relevant legal and reporting requirements; and (iii) what the stated motivations were for these repurchases. The tax motivation in respect of the repurchase of shares by a holding company via a subsidiary was submitted as important. Subsequent to their study, reforms introduced during 2009 in respect of treasury shares not only broadened the base of taxable dividends but also removed opportunities for perceived tax avoidance schemes (Marcus & Gore, 2008). The trend of treasury shares subsequent to the reform in 2009 has not yet been investigated and was included in the present study.
1999–2009	Wesson (2015)	The author concluded that during the target period, under the STC regime, investor preferences from a tax perspective would generally have led to dividends as a preferred distribution method (as it was exempt from tax). The repurchase of treasury shares by the holding company could possibly have been motivated by the related tax benefit during the target period. In other instances, during the target period (under the STC regime), share repurchases would not necessarily have had a tax advantage over dividends. The present study expanded on the study of Wesson (2015) by extending an empirical investigation under the dividends tax regime.
1999–2010	Carrim (2012)	The author concluded that tax regulation under the STC regime relating to share repurchases was not more tax efficient than dividends. The bias towards share repurchases, as noted in the USA at the time, was therefore not noted in the South African context under the STC regime. The author however asserted that the impact of tax regulation under the dividends tax regime would have to be observed. The present study considered the impact of tax regulation under the dividends tax regime and expanded on the aspect asserted by Carrim (2012).
2002–2007	Toerien & Marcus (2014)	The authors recognised the impact of the possible tax clientele effect in their research on tax capitalisation (whether or not market price reacted to taxes). The authors submitted that as STC was levied at company level there would have been no clientele effect if STC were levied instead of capital gains tax – the expected return of all investors would be affected regardless of their tax status. The expectation submitted was that a shift to dividends tax, which was levied on investors, affords the opportunity for possible tax clienteles. The authors concluded that empirical testing of this expectation would depend on the extent of ownership by individuals and institutional investors being known. The present study compiled the extent of ownership of individuals and institutional investors in order to provide empirical evidence of the effect of dividends tax which expanded on the study by Toerien and Marcus (2014) which did not take into account the extent of shareholding.

Target period	Study	Findings of study
2006	Firer et al. (2008)	The authors performed a survey among managers to ascertain factors that affect dividend policy and argued that taxes do not rank uppermost in the minds of management when they contemplate dividend policy. However, the authors qualified the findings in recognising that investors themselves were not liable for any dividends tax at that time and consequently only a limited number of questions in the survey addressed the issue of the impact of tax on the dividend decision. The effective rate at which capital gains are taxed has also notably increased since the study of Firer et al. (2008), which may contribute to different findings in the current tax environment. The present study considered tax reform in respect of capital gains tax and the introduction of dividends tax subsequent to the study of Firer et al. (2008) in an attempt to add to the current literature.
2008–2012	Coetzee & De Wet (2014)	The authors employed an event study approach to investigate abnormal daily share returns around the final dividend declaration date (event date) based on companies listed on the JSE. Share prices were found to have increased (positive market reaction) to dividend announcements for both companies with higher dividend payout ratios and lower payout ratios – resulting in mixed results in respect of the effect of taxes. Their research did not provide empirical evidence that differential taxes affect the supply of dividends. The present study contributed to the current literature by investigating whether the differential taxes (tax on dividends and capital gains tax) affect the supply of dividends.
April 2012	Marcus & Toerien (2014)	The authors found/demonstrated a net tax benefit when internal equity is utilised, depending on the investor tax rate and tax regime under which dividends are taxed (STC or dividends tax). The authors recognised that literature suggests that managers choose payout levels based mainly on commercial and market factors and not by virtue of any perceived tax benefit to investors. The authors concluded that the tax effects of retaining income (resulting in capital gains tax) as opposed to declaring dividends (resulting in dividends tax) should be a factor in a dividend decision. Their empirical evidence contributed to literature on the impact of differential taxes of dividends versus capital gains on costs of capital and the possible existence of tax clienteles. Their research did not provide empirical evidence on whether the differential taxes affect the supply of dividends. The present study contributed to the current literature by investigating whether the differential taxes (tax on dividends and capital gains tax) affect the supply of dividends.
April 2012	Chinhema (2014)	This study was submitted as the first tax clientele study in South Africa and found that ex-dividend prices vary systematically with taxes, hence supporting the tax-based explanation for ex-dividend day prices. The findings were based on a calculation of the price drop ratio as the ratio of the price change between the cum-dividend day and the ex-dividend day. The study did not consider the choice between dividend and share repurchases and also did not address the important aspect of whether or not the supply of dividends is affected by taxes – in respect of which the present study contributed.

Target period	Study	Findings of study
April 2012	Venter (2014)	Based on a critical analysis of legislation and the introduction of dividends tax, the possible impact on foreign and local investors was investigated. A case study was performed in which the after-tax value of a dividend was considered for different classes of investors (resident company, non-resident company where a double tax agreement applies or does not apply, and natural person resident). The study concluded that foreign investors are likely to benefit from the introduction of dividends tax. The position of a non-resident investor is recognised as complex owing to the double tax agreement between different countries. The study of Venter (2014) excluded share repurchases and the possible preference of an investor between a dividend and a share repurchase which was included for consideration in the present study.
April 2012	Badenhorst (2017)	The author investigated the impact of corporate shareholding (shares held by one company in another) and employee shareholding on growth in dividends during 2012 and 2013, with dividend growth during 2008 and 2009 serving as the control group. The study concluded that companies consider changes in the tax preferences of their investors in setting dividend policies and that corporates have greater success in lobbying for beneficial dividend changes than individuals. The present study expanded on the findings of Badenhorst (2017) in four respects: i. By including investor tax preference parameters that incorporate tax rates and are not solely based on shareholding. Badenhorst (2017) employed the percentage shares outstanding as a variable relating to corporate and employee investors without explicit inclusion of tax rates in regression analyses. The present study expanded on these findings by including investor tax preference parameters, reflecting capital gains tax and dividends tax rates, and not solely based on shareholding. ii. By including institutional investors and not focusing only on corporate and employee investors. Badenhorst (2017) submitted that findings could not be extrapolated owing to conflicting tax preferences among other groups of investors, which was indicated as an opportunity for future research. The exclusion of institutional ownership by Badenhorst (2017) in investigating dividend growth could be expanded on, as previous literature has found institutional owners to prefer dividends and, as such, significant institutional ownership could have explained increases in dividend growth. iii. By extending the target period of investigation to cover more recent tax reform in South Africa. The last financial year considered by Badenhorst (2017) was 2013, after which further tax reform in respect of applicable tax rates occurred in South Africa (refer to section 3.4). In the light of consecutive increases in the effective rate of capital gains tax, the differential between capital gains tax and dividends tax rates are more pronounced since 2013 and afford an opportunity to investigate a tax effect. iv. By considering the tax preference of investors for total payout and not only dividends. The effect of taxes on payout policy in finance literature has been analysed using a very narrow definition of dividend payout and, with only a few exceptions, does not cover the issue of total payout or the composition of payout (Allen & Michaely, 2003, p. 358). The present study expanded on the study of Badenhorst (2017) by the inclusion of total payout.

Target period	Study	Findings of study
1960–2014	Montgomery (2015)	The author investigated the relationship between the payout ratio and subsequent earnings growth from 1960 to 2014. Payout ratios were defined as dividends paid over earnings and depended heavily on earnings. Share repurchases were recognised as a possible alternative form of profit distribution to investors but were not captured in the payout ratios considered. The author commented that it was probably no coincidence that the abolishment of STC in 2012 largely coincided with a period of increased payout ratios. However, the author did not provide evidence of the effect of tax reform in effecting payout policy decisions. The present study expanded on the results by investigating the effect of tax reform on total payout (dividends, capital distributions, additional shares, and share repurchases) and not only focusing on dividends.
1999–2014	Nyere & Wesson (2019)	The authors considered the factors influencing dividend payout decisions and submitted that dividend payments in South Africa were growing in contrast to global observations of declining dividend yields. The authors expected that the dividends tax regime would favour dividend payments over share repurchases. The authors submitted the growth in dividends since the introduction of dividends tax as support for the taxes and tax clienteles theory. Their study, however, did not provide evidence on whether the differential taxation of dividends versus capital gains affects the supply of dividends. The present study expanded on the findings of Nyere and Wesson (2019) in three respects: i. By considering company-specific investor-level tax preference parameters which serve as basis of differential taxation of dividends versus capital gains, of which the effect on payout was then investigated. ii. By investigating the trend in total payout before and after the introduction of dividends tax, not only focusing on dividends. iii. By expanding on data collection to include the 2015 to 2019 financial years of companies.
2016	Sibanda (2016)	The author replicated the research performed by Brav et al. (2005) by circulating a questionnaire to senior executives of JSE-listed companies. The author found evidence – consistent with literature – in support of financial flexibility, catering, and price support theory. The author did not include specific questions relating to tax, as included by Brav et al. (2005, p. 494), and thus did not draw conclusions specifically about the tax effect of dividend policies, which were the focus of the present study.

Based on the South African literature surveyed in Table 2.3, the majority of studies focused on the period prior to the introduction of dividends tax. In respect of studies since the introduction of dividends tax, the literature does not provide insights in respect of the total payout of South African companies and focuses predominantly on dividends.

South African literature identified as relating to each of the four important aspects, or focus areas for research, as indicated by Farre-Mensa et al. (2014, p. 103) is provided in Table 2.4 to express the aspect to which the present study contributes.

Table 2.4

South African literature surveyed and focus areas for research

Focus area according to Farre-Mensa et al. (2014, p. 102)	South African studies relating to aspect
Does the differential taxation of dividends versus capital gains have an impact on the companies' value or cost of capital?	Marcus and Toerien (2014)
Does the differential taxation of dividends versus capital gains affect investor clientele, in the sense that investors' tax-motivated preferences result in migration towards different dividend-paying shares?	Chinhema (2014) Marcus and Toerien (2014) Badenhorst (2017)
Does the differential taxation of dividends versus capital gains affect the supply of dividends?	No South African literature regarding this aspect could be identified.
What are the effects of dividend taxation on the real decisions companies make, such as investments, research and development, compensation, and cash holding?	No South African literature regarding this aspect could be identified.

The effect of dividend taxation on the real decisions of companies (such as investments, research and development, compensation, and cash holding) is noted as a possible avenue for future research as this aspect is not within the scope of the present study. The present study intends to contribute to the aspect of whether the differential taxation of dividends versus capital gains affects the supply of dividends. The review of literature on the effect of taxes on payout policies included in this section emphasises the contribution of the present study to current South African literature. However, the literature from other countries and South Africa included in earlier discussions did not include a focus on literature specifically relating to each of the four research objectives of the present study. The literature relating to each of the four objectives of this study (after-tax values of payout methods, timing of dividends declarations, trend and composition of total payout, and investor tax preference parameters) is accordingly provided in the sections which follow.

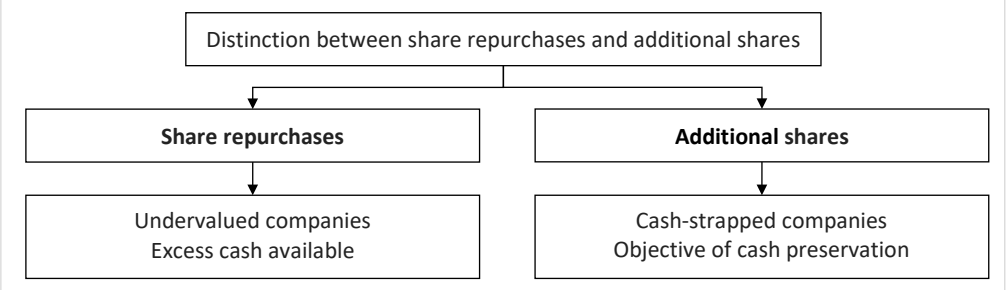
2.7 AFTER-TAX VALUES OF PAYOUT METHODS

A rational investor should prefer lower taxes to higher taxes on the cash flows they receive from their investments (Firer et al., 2008, p. 6). The theory of taxes and tax clienteles (Table 2.1) centre around the notion that after-tax return of distributions shape investors' preference for a specific payout method and, in turn, investors would then select a specific company based on their tax treatment and the company's payout policy (Baker et al., 2018). The consideration of changes in tax rates over time has informed the calculation of after-tax values in previous studies in order to formulate propositions on the effect of taxes on payout policies (Geiler & Renneboog, 2015; Pattenden & Twite, 2008).

The tax preference for a payout method could further result in the substitution of payout methods in order to maximise the after-tax receipts for the investor. Share repurchases have been submitted as substitute for cash dividends in countries with strong investor protection in order to maximise the after-tax return of investors (Alzahrani & Lasfer, 2012). Share repurchases have been found to be a popular means of distributing excess cash by selected JSE-listed companies from 2005 (Wesson, 2015). Companies that repurchase shares have moreover been found to be classified as value companies (which tend to be undervalued) prior to the repurchase transaction (Wesson, 2015). Issuing additional shares could furthermore serve as a substitute for cash dividends in cash-strapped companies (Lasfer, 1997) or financially constrained companies where the motive is cash preservation (Feito-Ruiz et al., 2020). Issuing additional shares would consequently apply when excess cash is not available, contrary to share repurchasing which depends on excess cash being available in order to repurchase shares. Share repurchases and issuing additional shares are therefore not submitted as a substitute for each other, but rather as possible substitutes for cash dividends. Share repurchases and additional shares were therefore investigated as mutually exclusive substitutes for dividends based on the characteristics of the declaring company as illustrated in Figure 2.3.

Figure 2.3

Share repurchases and additional shares as substitutes for dividends



Share repurchases would, however, not always serve as substitutes for dividends if shares are repurchased for a specific reason. For example, shares could be repurchased with the intention to reissue such shares to employees or in business acquisitions as a means of financing transactions rather than utilising earnings (Fama & French, 2001). Both the issue of shares to employees in terms of share incentive schemes and business combinations could also be subject to specific tax consequences, including tax relief, in terms of the Income Tax Act. Share incentive schemes could result in the normal tax treatment of share awards being deferred until disposal in the hands of the employee in terms of section 8B or 8C of the Income Tax Act (Republic of South Africa, 2020). Business combination, in turn, could qualify for roll-over relief in terms of section 42 and section 45 of the Income Tax Act (Republic of South Africa, 2020). In the South African context, the repurchase of treasury shares from a subsidiary to comply with the 10% limit, imposed in terms of section 48(2)(b) of the Companies Act (Republic of South Africa, 2009), could serve as an example of a share repurchase not being executed as a means of distributing value as payout method. Additional shares issued in combination with dividend cuts could further be argued to be complements to the dividend cuts rather than substitutes (Feito-Ruiz et al., 2020, p. 4). For purposes of the present study, share repurchases and additional shares were investigated as possible substitutes for cash dividends based on tax preference (comparison of after-tax values) for the different payout methods.

South African literature provides limited insight into investor tax-driven preferences for dividends and share repurchases. Marcus and Toerien (2014, p. 100) submitted an ex-ante prediction, without explicit calculation of after-tax values, that the change in tax regime could result in possible dividend tax arbitrage if investors were exempt from dividends tax or paid dividends tax at a lower rate than other classes of investors. Venter (2014) performed a case study in which the after-tax value of a dividend was considered for different classes of investors (resident company, non-resident company, and natural person resident). The study of Venter (2014) did not provide the after-tax values over a period of tax reform and ignored the capital gains tax implications of substitute payout methods. The present study aimed to expand on the limited literature by investigating the tax preference for different payout methods in South Africa over a period of tax reform based on three categories of shareholding (individuals, corporates, and institutions). The calculation of after-tax values would enable the tax impact over a period to be isolated and a tax differential calculated to quantify the magnitude of changes over the different periods. The first research objective of this study is to calculate the after-tax values of different payout methods for different categories of investors in Chapter 5.

2.8 TIMING OF DIVIDEND DECLARATIONS

The timing of economic transactions, which includes the postponement or acceleration of dividends, is submitted as most clearly responsive to tax incentives (Hanlon & Hoopes, 2014; Slemrod, 1992). As a tax regime change is external to a company, an opportunity is afforded to study the response of a company and investors to such changes (Korkeamaki et al., 2010). If tax reform is announced and subsequently becomes effective, the extent to which companies anticipate tax reforms could result in the postponement or acceleration of dividend payments. Korinek and Stiglitz (2009) concluded that anticipated tax reforms could allow mature companies to engage in intertemporal tax arbitrage by shifting dividend payments from high-tax periods to low-tax periods. An anticipated dividend tax cut, as was the case in the USA, allows companies to reduce the investors' tax bill by postponing dividend payments to the period in which the tax reduction takes place. This implies that companies carry larger cash balances in the meantime, which allows them to make larger investments when an investment opportunity arises (Korinek & Stiglitz, 2009). Hanlon and Hoopes (2014) submitted the first evidence of changes in the timing of regular dividend payments in response to tax law changes in the USA. Hanlon and Hoopes (2014) also noted an increase in special dividends immediately prior to the expected dividend tax rate increase and observed that companies responded by paying special dividends in advance of the tax rate increase and by shifting regular dividends into the expected lower-taxed period.

The timing of dividend declarations in South Africa based on tax reform relates to three conceivable aspects: (i) the anticipation of the introduction of dividends tax on 1 April 2012; (ii) the frequency of special dividends; and (iii) the non-declaration of dividends. Each aspect is briefly outlined in the sections which follow.

2.8.1 The anticipation of the introduction of dividends tax on 1 April 2012

Dividends tax was announced by the South African minister of finance during December 2011 and subsequently came into operation on 1 April 2012 (SARS, 2019, p. 5). Accordingly, the change in tax regime in South Africa would have been anticipated as it had been announced, but only subsequently became effective. In anticipation of the introduction of dividends tax on 1 April 2012, dividend declarations could conceivably have been postponed (in order to utilise the dividends tax exemption afforded since 1 April 2012) or accelerated (in order to utilise unused STC credits which expired after 1 April 2012). The timing of dividend declarations of JSE-listed companies in South Africa with reference to the specific date of 1 April 2012 has not yet been investigated, despite the opportunity provided by tax reform.

2.8.2 The frequency of special dividends

With a focus on the acceleration of dividends during a relevant year, special dividends could be utilised as a means of accelerating payout. Andres et al. (2015) reported results which support the flexibility hypothesis that predicts that (regular) dividends are used to disburse permanent earnings, and more flexible payout methods (special dividends and share repurchases) are used to disburse transitory earnings. Owing to the different labelling of special dividends, investors might perceive special dividends as once-off payments and, as a result, not expect a similar payment during the next period (Andres et al., 2015, p. 66). Furthermore, the flexibility of special dividends could extend to a tax context, as the use of special dividends has been noted as a means of acceleration of dividend declarations between different tax periods. However, there could be commercial reasons for special dividends not related to tax, such as large restructurings or divestments by companies, as noted by Bird (2013, p. 95). The timing of special dividends as a payout method is considered in the present study in investigating the effect of investor-level tax reform on the payout policies of companies with due recognition of the fact that commercial reasons for special dividends could exist.

In contrast to special dividends employed to accelerate dividends, the non-declaration of dividends is conceived as a means of postponing dividends from one period to another. No previous South African study could be identified that has considered the non-declaration of dividends as a means of postponing dividends.

2.8.3 The non-declaration of dividends

A company is under no legal obligation to declare dividends to ordinary shareholders. The legal obligation only arises once the board of directors has declared a dividend after due consideration of the solvency and liquidity test in terms of section 46(1)(c) of the Companies Act (Republic of South Africa, 2009). Since companies are under no obligation to declare dividends, the non-declaration of dividends may be conceived as a means of postponement of dividends. The absence of profitability and cash flow should however be recognised as commercial indicators which could explain the non-declaration of dividends. Corporate profitability has been found to be a significant and consistent determinant of dividend payout (Firer et al., 2008; Nyere & Wesson, 2019). Free cash flow could also be expected to have a direct impact on a company's ability to pay dividends, as weak cash flows could limit the payment of dividends by profitable companies (Nyere & Wesson, 2019). The non-declaration of dividends with due regard to profitability and cash flows during 2012 has not yet been investigated in South Africa to explore tax as an explanation for the non-declaration of dividends.

Based on the fact that the timing of dividend declarations had not been investigated as detailed in the preceding section, the second research objective of the present study was to investigate the timing of dividend declarations before and after the introduction of dividends tax in 2012 (Chapter 6). In this regard, an overview of a regulatory framework in respect of dividend declarations is provided in the section which follows to serve as background to the research method provided in Chapter 4 in respect of the second research objective.

2.8.4 South African regulatory framework in respect of dividend declarations

In respect of the timing of dividend declarations, a company would only be in a position to declare a dividend once annual financial statements have been finalised (i.e. financial statements have been prepared and have been approved by the relevant internal governing person) as evidence of compliance with solvency and liquidity requirements. Moreover, the JSE Listings Requirements prescribe the period during which interim and annual financial statements need to be published and therefore when such financial results can be expected by investors. Interim reports should be published after the expiration of the first six-month period of a financial year, and by no later than three months after that date (JSE, 2017, Listings Requirements, paragraph 3.15). Annual financial statements should be distributed to holders of securities within three months of their financial year-end or, failing that, issuers must publish a provisional report within the fourth month after their financial year-end (JSE, 2017, Listings Requirements, paragraph 3.20).

On this premise, a possible explanation for the postponement of dividend declarations could be the delayed timing of financial reporting – specifically the audit report lag (generally referred to as the time period between a company's financial year-end and the audit report date) (Knechel & Payne, 2001). The time taken to finalise an audit could conceivably result in the delay of a dividend declaration if compared to previous financial years, as the dividend declaration would depend on audited financial results. Based on their synthesis of literature, Abernathy et al. (2017, p. 124) identified an apparent shorter audit report lag for larger, more successful companies as well as companies with stronger corporate governance provisions. Conversely, more frequent longer audit report lags were found for companies with identifiable risk characteristics (such as poor financial performance, industry risk, and identified internal control weaknesses). In addition, complex tax situations were also found to have a direct impact on the annual financial statements and had to be resolved before an audit opinion could be produced, which would result in a longer audit report lag (Knechel & Payne, 2001, p. 137). Audit report lag could conceivably have resulted in a postponement of dividend declarations pending the finalisation of the audit report. If found that audit report lag or financial reporting delay explained the

postponement of dividend declarations, tax as an explanation for such postponement would be less warranted.

Furthermore, the regulatory requirements pertaining to final and interim dividends of JSE-listed companies differ. The audit of annual financial statements of JSE-listed companies in South Africa is mandatory. The audit of interim financial statements is, however, not mandatory and a review only required if the company's auditor disclaimed, qualified, or gave an adverse opinion in the issuer's last annual financial statements (JSE, 2017, Listings Requirements, paragraph 3.18(b)). A distinction between a final and interim dividend is submitted as warranted as final dividends are expected to be affected most by financial reporting delays and possible audit report lags for listed companies owing to being subjected to compulsory annual audits. No previous South African study could be identified which had considered a distinction between final and interim dividends based on the conceivable difference in financial reporting delays and possible audit report lags.

2.9 TREND AND COMPOSITION OF TOTAL PAYOUT

Tax-related literature on dividends explores the implications of differential taxes on dividends and capital gains on the valuation of shares and the propensity of companies to pay out cash dividends (Allen & Michaely, 2003, p. 358). Finance literature in general analyses the payout policy question, using only a narrow definition of dividend payout, with most studies not addressing the issue of total payout or the composition of the payout (Allen & Michaely, 2003). This section investigated the total payout of companies, comprising both dividends and other payout methods.

Share repurchases could serve as a substitute payout method for cash dividends in order to maximise the after-tax return of the investors (Alzahrani & Lasfer, 2012). The inherent payout flexibility of share repurchases over cash dividends has been observed (Wesson et al., 2018) and share repurchases could serve both substitute and complementary roles to cash dividends (Munzhelele, 2019, p. 124). Additional shares could also serve as a substitute for cash dividends in cash-strapped companies or financially constrained companies that wish to preserve cash (Feito-Ruiz et al., 2020; Lasfer, 1997). South African literature has shown increases in dividends from 2012 to 2014 (Nyere & Wesson, 2019); however, it does not consider the effect of increased dividends in relation to payouts other than dividends. The investigation of whether the increased dividends are accompanied by a decrease in payouts other than dividends could provide an insight into how companies have responded when faced with conflicting tax preferences since the introduction of dividends tax. The consideration of the trend and composition of total payouts could also provide an insight into the possible substitution of payout methods. A dividend payout subject to dividends tax could be substituted by another payout

method subject to capital gains tax in order to minimise the taxes payable by an investor. Conversely, a payout method subject to capital gains tax could be substituted by a dividend payout in order to afford an exemption from dividends tax to minimise the taxes payable by an investor. Payout methods other than dividends, with differing tax implications, can be used to distribute value to investors.

Special dividends are also argued to be a payout method that should be distinguished from ordinary dividends. Owing to the different labelling of special dividends, investors might perceive special dividends as once-off payments and will not expect a similar payment during the next period (Andres et al., 2015, p. 66). The flexibility hypothesis also suggests that ordinary dividends are used to disburse permanent earnings and that more flexible payout methods (special dividends and share repurchases) are used to disburse transitory earnings (Andres et al., 2015). The flexibility of special dividends could also extend to a tax context as the use of special dividends has been noted as a means of accelerating dividend declarations between different tax periods (Hanlon & Hoopes, 2014). However, there could be commercial reasons for special dividends that are unrelated to tax such as large restructurings or divestments by companies (Bird, 2013, p. 95). Special dividends as a result of unbundling transactions could also qualify for specific tax relief which could result in no dividends tax being payable in terms of section 46 of the Income Tax Act (Republic of South Africa, 2020). Special dividends as a result of unbundling transactions are thus excluded from the present study as specific tax relief could apply. Special dividends not related to unbundling transactions would still afford a dividends tax exemption to corporate and institutional investors and could have encouraged the use of such special dividends as a payout method during the post-2012 period.

Accordingly, the total payout of companies is posited as comprising ordinary dividends, special dividends, capital distributions, additional shares, and share repurchases. The trend in, as well as the determinants of, these various payout methods are considered in the sections which follow.

2.9.1 Trend in payout methods in South Africa

Dividends have been noted as having increased from 2012 to 2014 in South African literature (Badenhorst, 2017; Nyere & Wesson, 2019). Based on the relationship between dividend payout ratios and subsequent earnings growth from 1960 to 2014, the introduction of dividends tax largely coincided with a period of increased dividend payout ratios (Montgomery, 2015). Furthermore, as a transitional measure from STC to dividends tax, the STC credits of a company could be utilised for a period of three years after the introduction of dividends tax in terms of section 64J (now repealed) of the Income Tax Act . All STC credits were terminated on 1 April 2015 and companies could only utilise STC credits to reduce dividends tax in respect of dividends paid on or before 31 March 2015 (SARS,

2019, p. 54). The offsetting of an STC credit under the dividends tax regime would have resulted in dividends not being subject to dividends tax in a particular year and would consequently increase the dividends received by investors (Coetzee & De Wet, 2014). Offsetting STC credits could also have encouraged increased dividends during the three years after the introduction of dividends tax to benefit investors subject to dividends tax. The introduction of dividends tax is also argued as beneficial in particular to corporate, foreign, and fund investors (Badenhorst, 2017; Filen, 2011; Venter, 2014) – based on an exemption from dividends tax afforded in terms of section 64F of the Income Tax Act (Republic of South Africa, 2020). The dividends tax exemption afforded could further have encouraged the use of dividends as a payout method during the post-2012 period.

Capital distributions represent a return of stated capital (share capital or share premium) to investors. Share premium distributions by JSE-listed companies were noted as decreasing from 2011 to 2014 and as nominal in relation to dividends distributed from profits over the period 1999 to 2014 (Nyere & Wesson, 2019, p. 9). The trend of decreasing capital distributions was expected to continue after 2014 because of increases in the effective rate of capital gains tax and an exemption from dividends tax forfeited by corporate and fund investors.

Additional shares could be issued to an investor by different means, being a capitalisation issue, a scrip dividend, an issue in terms of a dividend reinvestment plan (DRIP), or a rights issue. A capitalisation issue and scrip dividend result in the investor receiving additional shares, with only a scrip dividend including the option to elect a cash distribution instead of additional shares (JSE, 2016). DRIP entails dividends that could be reinvested by a DRIP agent that acquires further shares on behalf of the investor utilising the net dividend, after relevant taxes, to which the investor is entitled (Share Trading Transactions Totally Electronic [STRATE], 2012). A rights issue (or nil-paid letter) entitles an investor to acquire additional shares at a discount below market price. There is evidence that a large number of listed South African companies were involved in scrip dividends during the period 1999 to 2009, and such scrip dividends were presented as tax effective under the STC regime (Oosthuizen, 2009). Scrip dividends could have been applied more frequently as a payout method since the introduction of dividends tax as a result of the flexibility afforded to investors. Investors are given the option to decide between cash dividends or additional shares under a scrip dividend payout, as opposed to having no option under a capitalisation issue payout. The utilisation of scrip dividends empowers investors to choose between cash dividends (subject to dividends tax) or additional shares (subject to capital gains tax if held with capital intent). Investors could thus base their decision on their financial position, including tax consequences, to maximise the after-tax receipt in respect of a payout method.

Share repurchase activity for the period 2000 to 2009 indicated that share repurchases have increased since 2005 (Wesson et al., 2015, p. 49). Dividends were still being noted as the preferred payout method but showed a lower growth rate than share repurchases over the target period of 1999 to 2009 (Wesson et al., 2015, p. 52). The popularity of share repurchases conducted via subsidiaries (and the subsequent repurchase by the holding company of the shares held by subsidiaries) has resulted in general (or open-market) share repurchases not being the outright favourite share repurchase type, as is the case globally (Wesson et al., 2015, p. 52). Since 2011, the general repurchase (or open-market repurchase) of shares would not constitute a dividend resulting in no dividends tax exemption being available to corporate or fund investors. As a result, the tax preference of corporate and fund investors for dividends could have discouraged the use of general repurchases as a payout method.

The observable trend in the payout of JSE-listed companies since the introduction of dividends tax was an increase in dividends from 2012 to 2014 (Badenhorst, 2017; Nyere & Wesson, 2019). Share repurchases were also noted to have increased during 2014 and 2015 (Steenkamp & Wesson, 2020). South African literature does not, however, consider the effect of increased dividends in relation to payout other than dividends since the introduction of dividends tax. Furthermore, to the best of the author's knowledge, the trend in additional shares being issued as payout method has also not been published since the introduction of dividends tax. The opportunity is afforded to contribute to literature by documenting the trend and composition of total payout since the introduction of dividends tax. Based on an investigation of the trend and composition of total payout, the determinants of payout methods should be considered. The literature review proceeds by providing an overview of the literature from other countries and South Africa, relating to the determinants of payout methods which also include tax as a determinant.

2.9.2 Determinants of payout methods

Various determinants in a choice between dividends and payout other than dividends have been brought to the fore in literature, including the possible motivations for payout other than dividends. Shareholder heterogeneity, the size of the distribution, the level of company undervaluation, agency cost, and history of dividend payment have been found to be significant determinants in the choice between share repurchases and dividend payments (Wesson et al., 2018). The propensity of companies to pay dividends may also be affected by share repurchases as the practice of share repurchase could compensate shareholders by reducing the number of outstanding shares (Bae, 2017, p. 41). The specific repurchase of shares by a subsidiary, namely treasury shares, could also afford flexibility to a company in the management of the capital structure of companies (Cassim, 2010).

In addition to dividends and share repurchases, directly distributing cash to shareholders in order to reduce capital (i.e. capital distributions) is not only an alternative form of payout, but also a means by which capital structures could be altered (Liu et al., 2014, p. 47; Liu et al., 2015, p. 1). Companies with accumulated abundant retained earnings and cash holdings could be motivated to streamline their capital structure and mitigate the agency cost of free cash flows (Hovakimian et al. (2001) and Jensen (1986) in Liu et al., 2014, p. 47). Loss-suffering companies could also utilise capital reductions to atone for the accumulated losses of equity value if a company writes off the losses by cutting an equivalent amount of shareholders' stakes with the intention of raising new funds (Liu et al., 2014, p. 47). Additional shares could be issued as a substitute for cash dividends in cash-strapped companies or financially constrained companies aiming to preserve cash (Lasfer, 1997; Feito-Ruiz et al., 2018). Issuing additional shares as dividends (stock dividends) might also signal the confidence of managers in the future prospects of the company and might also adjust the share price to a more appropriate range, increasing the share liquidity (Wei, & Xiao, 2009, p. 171). Despite the varying motivations for payout other than dividends, profitability has been submitted as a prerequisite for payout earnings by different payout channels (Geiler & Renneboog, 2015, p. 192). The present study only included profitability, prior payout, ownership concentration, and tax as explanations for payout methods. The study, however, recognises the other determinants which could explain payout other than dividends.

Literature provides limited insights into tax as a determinant for payout other than dividends. In respect of share repurchases, tax as a determinant has been observed. In the USA it has been found that the legalisation of share repurchases during a high dividend tax preference regime lowered the dividend payout ratios (Bae, 2017, p. 57). The legalisation of share repurchases is thus submitted to have a meaningful influence on the relationship between dividend payout ratios and dividend tax preference (Bae, 2017, p. 57). In Australia, large companies have been noted to use tax-driven off-market share repurchases to distribute cash and stream tax credits to low-tax-rate shareholders (Brown & Davis, 2020). Fundamental problems with corporate use of tax-driven off-market share repurchases in Australia have thus been noted and, based on a social cost-benefit analysis, the prohibition thereof has been argued (Brown & Davis, 2020). In respect of capital distributions, tax as a determinant has also been observed. In Greece, it was observed that untaxed return of capital grew rapidly since the introduction of taxes on dividend income at individual shareholder level (Dasilas & Grose, 2019, p. 307). Greek listed companies have accordingly been found to have utilised alternative ways of distributing untaxable income, at personal level, to shareholders, mainly through the form of return of capital (Dasilas & Grose, 2019, p. 307). The market reaction on the announcement day for returns of capital was also more than double compared to dividends (Dasilas

& Grose, 2019, p. 307). In respect of additional shares, tax has not been noted as a determinant. Companies listed in the UK were found to utilise elective stock dividends which are not taxation-driven, as cash and scrip dividends are, subject to the same tax treatment (Feito-Ruiz et al., 2020, p. 3). In Australia, contrary to a tax expectation, no evidence was found that dividend taxation explains participation rates in a DRIP (Abraham et al., 2015). Literature suggests tax as a determinant for payout other than dividends to be more pronounced for share repurchases and capital distributions than for additional shares.

South African literature considering tax as a determinant for payout other than dividends is limited to the STC regime with no empirical consideration under the dividends tax regime. Under the STC regime, share repurchases were found not to be more tax efficient than dividends (Carrim, 2012) except for the tax motivation argued in respect of share repurchase by a holding company via a subsidiary (i.e. treasury shares) (Wesson & Hamman, 2012). Based on the fact that limited consideration has been provided to tax as a determinant in payout methods an opportunity for further research arises.

The trend in payout methods and the current lack of focus of tax as a determinant for payout methods merit an argument for further research. The third research objective of the present study was to investigate the trend and composition of the total payout before and after the introduction of dividends tax in 2012 (Chapter 7).

2.10 INVESTOR-TAX PREFERENCE PARAMETERS AND PAYOUT METHODS

The investigation of whether the differential taxation of dividends versus capital gains affects the supply of dividends has been recommended as an opportunity for further research (Farre-Mensa et al., 2014, p. 103). Investor tax preference parameters incorporate both the tax on dividends and the tax on capital gains and have been employed in literature in investigating the effect of taxes on payout policies (Geiler & Renneboog, 2015; Poterba, 2004). South African literature surveyed (Table 2.3) has not incorporated investor tax preference parameters as a variable and only includes limited reference to shareholding in studies concerned with the effect of taxes on dividend policies. Descriptive evidence has been provided that, subsequent to the introduction of dividends tax in South Africa, corporate investors preferred dividends and individual investors preferred capital gains when tax is the only consideration (Toerien & Marcus, 2014). Explanatory evidence has also been submitted that JSE-listed companies with higher corporate shareholding increased dividends significantly faster than other companies based on dividend growth during 2012 and 2013 (Badenhorst, 2017, p. 4). This implies that corporate investors could have had sufficient influence to align the dividend policies of companies in which shares are held with their tax preferences because of the size of their holdings,

or it merely reflected that corporate investors tend to be better at organised lobbying than individuals (Badenhorst, 2017, p. 4). The aforementioned South African studies, however, did not include specific consideration of how the supply of dividends is affected by the differential between dividends tax and capital gains tax. The South African setting provides an opportunity to incorporate investor tax preference parameters in order to provide explanatory evidence on how the supply of dividends is affected by differential taxation of dividends versus capital gains.

Tax preference parameters include dividend tax preference parameters (based solely on tax rates) and investor tax preference parameters (a function of tax rates and shareholding). Dividend tax preference parameters are defined by Poterba (2004) as:

$$\textit{Dividend tax preference} = [(1 - \tau_{div})/(1 - \tau_{cg})] \quad \text{....(Equation 2.1)}$$

where τ_{div} is the marginal tax rate on dividends and τ_{cg} is the marginal tax rate on capital gains. Dividend tax preference parameters accordingly depict the preference for dividends relative to capital gains based solely on tax rates. Investor tax preference parameters expand on dividend tax preference parameters by including the shareholding of companies, which enables investigation at company level. Investor tax preference parameters are consequently depicted as θ_t and defined by Poterba (2004) as:

$$\textit{Investor tax preference parameter} = \theta_t = \sum_h w_{h,t}[(1 - \tau_{div,h,t})/(1 - \tau_{cg,h,t})] \quad \text{....(Equation 2.2)}$$

where $w_{h,t}$ refers to the percentage shareholding of investor h at time t. Investor tax preference parameters as a result express the relative tax burden of dividends versus capital gains for different categories of investors in a company.

Poterba (2004) considered federal data from 1929 to 2003 (74 years) in respect of households and funds in the USA. Corporate investor tax preference parameters were excluded from the specification as corporate investors could invest for strategic reasons, resulting in a dividend policy that is, at best, expected to be a second-order consideration (Desai & Jin, 2011, p. 79). Poterba (2004) submits that the impact of a tax change on payout depends on the elasticity of dividend payments with respect to the after-tax value of dividend income relative to capital gains. Short-run changes in tax preference parameters were, however, found by Poterba (2004) to have a small and statistically insignificant effect on aggregate dividends.

Poterba (2004) used aggregate data to study how a change in the weighted-average tax-preference parameter affects aggregate dividend payments (Desai & Jin, 2011, p. 79). Consequently, Poterba's (2004) evidence was at the macro level, whereas subsequent studies (Desai & Jin, 2011; Geiler & Renneboog, 2015) provided evidence at company level by calculating tax preference parameters at company level.

Desai and Jin (2011), in their study in the USA for the period from 1980 to 1997 (17 years), combined data on institutional investor holdings with data on the tax preferences of the clients served by the institutional investors. By capitalising on the variation in payout policies and heterogeneity within the tax preferences of a type of investor, Desai and Jin's (2011) analysis provided direct evidence of the presence of dividend clienteles. Corporate investor tax preference parameters were also excluded by Desai and Jin (2011, p. 15).

Geiler and Renneboog (2015) considered the payout data of companies listed in the UK from 1997 to 2007 (10 years). Geiler and Renneboog (2015) pursued a company-level investigation and included three different tax preference parameters for individual, corporate, and pension fund investors. As a result, Geiler and Renneboog (2015) also considered the tax preference parameters of corporate investors, which were ignored by Poterba (2004) and Desai and Jin (2011). Overall, Geiler and Renneboog (2015) concluded that short-run changes of tax preference parameters generally seem to have a limited effect on the changes in dividend payout in the UK.

No South African study, to the best of the author's knowledge, has included consideration of investor tax preference parameters despite the opportunity provided as a result of significant tax reform since 2012. The present study contributes to the existing literature by including tax preference parameters that are not available on any commercial database. Detailing the data-collection method and calculation of tax preference parameters could also serve as a basis for expansion and refinement in future studies in which the tax preference of investors is considered as a variable. The calculation of investor tax preference parameters is a function of dividend tax preference parameters (Equation 2.1) and shareholding. An overview of the regulatory framework which applies to the shareholding of JSE-listed companies is provided in order to consider the potential disclosures of companies which could serve as source of shareholding data in the present study. The regulatory framework would furthermore serve as background to the South African setting of the present study. Literature related to institutional shareholding is discussed as a specific type of shareholding related to JSE-listed companies. The literature review concludes with literature in respect of ownership concentration.

2.10.1 South African regulatory framework in respect of shareholding of JSE-listed companies

In 2001, all shares listed on the JSE moved to the Share Trading Transactions Totally Electronic (STRATE) system, which maintains a share register of all registered share ownership of listed companies. STRATE is South Africa's central securities depository and a tri-party collateral platform that safeguards the ownership rights of investors in securities and other assets using digitally enabled processes (STRATE, 2020). In value, more than 90% of the shares in South African companies are held in dematerialised (electronic) form in South Africa on STRATE (Thomas, 2017, p. 5).

The registered investors of JSE-listed companies are centralised and maintained by STRATE. The registered shareholder could, however, not be the beneficial owner of the share being held. A beneficial interest is defined in section 1 of the Companies Act (Republic of South Africa, 2009) as:

> the right or entitlement, through ownership, agreement, relationship, or otherwise, to receive or participate in any distribution in respect of the securities; exercise, in the ordinary course, any of the rights attaching to the securities; or dispose of the securities, or any part of a distribution in respect of the securities.

Registered shareholders are obligated to disclose to a company where another person has a 'beneficial interest' in shares held by the registered shareholder in terms of section 56 of the Companies Act, to promote transparency between the company and the shareholder (Norton Rose Fulbright, 2017). The concept of beneficial shareholding is also relevant for tax purposes as the liability for dividends tax vests in the beneficial owner of a dividend in section 64EA of the Income Tax Act (Republic of South Africa, 2020). The two types of shareholder data that were considered in the present study are registered shareholding maintained by STRATE and beneficial shareholding data disclosed by registered shareholders.

Although the difference between registered and beneficial shareholders is recognised, it should be stipulated that the registered shareholder would also be the beneficial shareholder, unless the contrary is evident based on disclosure by the registered shareholder. Separate consideration of registered and beneficial shareholding is submitted as warranted, as both could provide insights into the effect of the differential treatment of dividends tax and capital gains tax on payout policies.

In respect of shareholding, JSE-listed companies are subject to specific disclosures that could serve as a data source for research purposes. The specific disclosures are stipulated in the Companies Act and the JSE Listings Requirements, and include the disclosure of the following:

- The number of public shareholders for every class of listed shares; the percentages of each class of securities held by public and non-public shareholders; and an analysis in accordance with specific categories (JSE, 2017, Listings Requirements, paragraph 3.43).
- The interest of major shareholders beneficially holding five percent or more of any class of the listed company's capital (JSE, 2017, Listings Requirements, paragraph 8.63(e)).
- The number of shares and class of any securities issued to a director or person holding a prescribed office, including the consideration received by the issuing company for the securities in terms of section 30(40)(d) of Companies Act (Republic of South Africa, 2009).
- The aggregate of the direct and indirect beneficial interests of the directors, as well as associates of the directors, in the share capital of the listed company, including: (a) comparative figures for the previous year; and (b) a statement if any change in those interests occurring between the end of the financial year and the date of approval of the annual financial statements (JSE, 2017, Listings Requirements, paragraph 8.63(c)).

In respect of public shareholding disclosures shares will not be regarded as being held by the public if they are beneficially held, whether directly or indirectly, by: (a) the directors of the applicant or of any of its major subsidiaries; (b) an associate of a director of the applicant or of any of its major subsidiaries; (c) the trustees of any employees' share scheme or pension fund established for the benefit of any directors or employees of the applicant or any of its subsidiaries; (d) any person that is interested in 10% or more of the securities of the relevant class, unless the JSE determines otherwise; or (e) employees of the issuer, where restrictions on trading in the issuer's listed securities, in any manner or form, are imposed by the issuer on such employees (JSE, 2017, Listings Requirements, paragraph 4.28(e)). JSE-listed companies must use their best endeavours to ensure that 20% of each class of equity securities is held by the public to ensure reasonable liquidity (JSE, 2017, Listings Requirements, paragraph 3.37 & paragraph 4.28(e)). JSE-listed companies are also typically expected to have diverse ownership characterised by a large number of relatively small shareholders, although many will also have one or more strategic shareholders with significant influence (Thomas, 2017, p. 2).

Pursuant to specific disclosure requirements, JSE-listed companies could analyse STRATE-registered holdings directly or procure the services of external companies that provide value-added services in respect of shareholding. External companies could provide value-added services to JSE-listed

companies in respect of share registers, including collating and distributing listed company share register information (Timbukone, n.d.) and providing information on the composition of portfolios, the composition of the shareholder base, geographical composition, and voting powers (VACO Holdings, n.d.). Commercial databases also provide shareholding information in respect of JSE-listed companies that is not solely compiled from share registers but also from shareholder and fund manager disclosures. Shareholding information on commercial databases could be based on actively reported holdings, and not total shares outstanding, from reporting sources such as: (a) the holdings information from STRATE or mutual fund disclosures (Bloomberg, n.d.); (b) comprehensive shareholding and nominee disclosures (IRESS, n.d.); and (c) from stock exchanges, regulatory bodies, institutions, financial reports, and through relationships with listed companies (Refinitiv, 2020).

In addition to the JSE Listings Requirements there have also been other regulations aiming for more transparency of shareholdings in companies. From 2017, the amended Financial Intelligence Centre Act in South Africa requires accountable institutions (which include financial institutions and insurance companies) to establish and validate the identity of every client, including consideration of beneficial ownership (Duri & Matasane, 2017, pp. 184–185). Prior to the amendment in 2017, South African law did not contain measures to regulate beneficial ownership, which exposed corporate vehicles to risks of money laundering and terrorist financing (Duri & Matasane, 2017, p. 179).

The specific shareholding disclosures relating to JSE-listed companies result in registered shareholding data and beneficial shareholding data. These shareholding data sources have, however, only been explored to a limited extent in the literature in the context of the effect of taxes on payout policies. Bester (2008) conducted an analysis of the shareholder distribution activities of JSE-listed companies and based on interpretation, rather than empirical analysis, concluded that tax implications (whether STC can be avoided or not) and share price valuation remain the dominant determinants of shareholders' distribution choice between dividends and share repurchases. The present study focused on the period under the dividends tax regime in order to investigate the effect of taxes as a result of tax reform and expands on Bester's (2008) findings. The possible impact of the introduction of dividends tax on foreign and local investors has been explored (Venter, 2014); however, the present study expands on this previous study by utilising the shareholding data generated by specific disclosures by companies and shareholders. Badenhorst (2017) investigated the impact of corporate shareholding (i.e. the shares held by one company in another) on growth in dividends from 2012 to 2013, compared to dividend growth from 2008 to 2009. Badenhorst (2017) found that corporate shareholding is significantly positively related to dividend growth before and after the tax reform.

The exclusion of institutional ownership by Badenhorst (2017) in investigating dividend growth could be expanded on as previous literature has found that institutional owners prefer dividends and, as such, significant institutional ownership could have explained increases in dividend growth. The present study included consideration of the tax preference of institutional shareholders, which is elaborated on in the section that follows.

2.10.2 Institutional shareholding of JSE-listed companies

Institutional investors are defined as entities with large amounts to invest, such as investment companies, brokerages, insurance companies, pension funds, investment banks, and endowment funds (JSE, 2016). Institutional investors include asset owners (typically pension funds and insurance companies) and asset managers (who traditionally manage pooled share portfolios on behalf of their clients and asset owners) (Johnston, 2019, p. 13). Institutional investors are covered by fewer protective regulations because it is assumed that they are more knowledgeable and better able to protect themselves (JSE, 2016).

Rather than being a homogeneous group, institutional investors in the USA have been posited as differing greatly regarding their tax exposure, ranging from tax-exempt entities (pension funds and non-profit organisations) to partially taxed insurance companies (with tax relief for policyholder income), to fully taxable corporations (hedge funds and mutual funds) (Mitchell, 2019, p. 3). Institutional investors have consequently been divided into different categories that are most likely to be tax advantaged with respect to dividends and institutional investors that are most likely to be tax disadvantaged with respect to dividends in the USA (Moser, 2007, p. 993). One study in Sweden inferred the tax status of institutional investors from the name, organisation identification number, and a legal code from Statistics Sweden, which uniquely identifies the tax status of many institutional investors (Dahlquist et al., 2014, p. 5). Consequently, the heterogeneity in institutional investor tax characteristics has been employed to identify the relation between company payout policy and institutional investor tax incentives (Desai & Jin, 2011). Desai and Jin (2011), in their study in the USA, combined data on institutional investor holdings with data on the tax preferences of the clients that institutional investors serve. South African institutions are also required to disaggregate holdings, which are then reported to the Financial Surveillance Department (FinSurv) of the South African Reserve Bank; however, such data are not publicly available (Thomas, 2017, p. 12). Furthermore, establishing the true identity of the ultimate investors could present a daunting challenge as a result of confidentiality provisions and the added complexity of central securities depository participants and nominee companies often being recorded as the registered shareholders on the company's share

register despite holding shares on behalf of underlying beneficial shareholders (Johnston, 2019, p. 13). Owing to data availability and the challenges noted in identifying the ultimate beneficial shareholders, the present study did not attempt to infer the tax position of institutions based on the tax position of the clients they serve.

The heterogeneity in institutional investors is recognised in the consideration of tax consequences of different categories of institutional investors in South Africa. In South Africa, the main institutional investors have been submitted as comprising pension funds, provident funds, insurers, and unit trusts (Nonhlanhla & Nombulelo, 2011). The term 'unit trust' includes collective investment schemes. Collective investment schemes in securities are referred to as so-called equity unit trusts (SARS, 2020a, p. 515). South African institutional investment in JSE-listed equity, based on the underlying (originating) institution that receives funds from retail clients, is illustrated in Table 2.5, followed by a discussion of the South African dividends tax and capital gains tax consequences in respect of these institutions.

Table 2.5

South African institutional investors in JSE-listed equity

Institutional investor	Holdings of JSE-listed equities (R' million)	Percentage of total
Retirement funds	1 634 926	50.4%
Investment managers	958 723	29.6%
Collective investment schemes	328 681	10.1%
Long-term insurance companies	319 710	9.9%
Total institutional investment	**3 242 040**	**100.0%**

Note. Sourced from Thomas (2017). Equities in value include ordinary shares, preference shares, and compulsorily convertible debentures as at the end of 2016. Preference shares and debentures are, however, a relatively small component of the equity market and are thus not expected to influence the results of an analysis (Thomas, 2017, p. 12). The percentage of total institutional investment was calculated in the present study.

Retirement funds are the largest group of institutional investors on the JSE, based on the underlying (originating) institution that receives funds from retail clients, which reflects the dominant role of retirement savings for households in South Africa (Thomas, 2017, p. 11). With the Government Employees Pension Fund (GEPF) representing around 40% of the reported assets of retirement funds, the GEPF is the single largest investor in the local equity market, either directly or through the Public Investment Corporation in South Africa (Thomas, 2017, pp. 13–14). For dividends tax purposes, a fund

investor (including the following funds: pension, pension preservation, provident, provident preservation, and retirement annuity) would be afforded an exemption from dividends tax in terms of section 64F(1)(f) of the Income Tax Act (Republic of South Africa, 2020). The exemption could have been to provide a further stimulus for retirement saving and was not available prior to the introduction of dividends tax in 2012 (Filen, 2011). For capital gains tax purposes, funds contemplated in section 10(1)(d) are also exempt from normal tax, including capital gains tax in terms of paragraph 63 of the Eighth Schedule to the Income Tax Act (Republic of South Africa, 2020). The present study submits that fund institutions would have been tax neutral in respect of dividends tax and capital gains tax since the introduction of dividends tax in South Africa in 2012.

Investment managers are the second largest group of institutional investors on the JSE and act as asset managers on behalf of the underlying beneficial shareholders. Such asset managers administer the share portfolios under their control in terms of an investment mandate that determines voting powers in respect of resolutions and could also include confidentiality provisions (Johnston, 2019, p. 13). Hedge funds are also pooled security investment vehicles administered by a professional investment management company and are typically structured as *en commandite* partnerships or trusts, both of which are flow-through vehicles for South African tax purposes (Engel, 2016, p. 64). Owing to the confidentiality provisions and the added complexity of central securities depository participants and nominee companies, which are often recorded as the registered shareholders on a company's share register, attempting to establish the true identity of underlying beneficial shareholders could be a daunting challenge (Johnston, 2019, p. 13). For dividends tax purposes, the underlying beneficial shareholder would be subjected to dividends tax in respect of which the investment manager would act as a regulated intermediary and recover any applicable dividends tax on behalf of the tax authority (SARS, 2019, p. 50). Investment managers would only be subjected to dividends tax in their own capacity if the shares are held for their own beneficial interest. If investment managers merely manage the shares on behalf of the underlying beneficial shareholder, the investment managers would not be subjected to dividends tax in their own capacity. Investment managers would also not realise any capital gains tax in respect of distributions as the disposal of the shares would also rather result in capital gains tax consequences for the underlying beneficial shareholder. The present study submits that investment manager institutions would have been tax neutral in respect of dividends tax and capital gains tax since the introduction of dividends tax in South Africa in 2012.

A collective investment scheme in securities (CISS) represents the second smallest group of institutional investors on the JSE. A CISS typically houses security funds in the form of a trust (with

company incorporation being a theoretical but impractical option) and is regulated in terms of the Collective Investments Scheme Control Act (Engel, 2016, p. 64). The regulation of certain hedge funds also being prescribed in accordance with the Collective Investments Scheme Control Act since 2015 resulted in the conversion of hedge funds into a collective investment scheme since 2015 (Engel, 2016, p. 64). For dividends tax purposes, the unit holder in a CISS is regarded as the beneficial owner of a dividend if the dividend that accrued to the CISS is on-distributed to the unit holder within one year of accrual to the CISS (SARS, 2019, p. 48). If the unit holder in a CISS is the beneficial owner, the CISS would then be regarded as a regulated intermediary. A CISS would be regarded as the beneficial owner of a dividend if the dividend that accrued to it is not on-distributed to the unit holder within one year after its accrual to the CISS (SARS, 2019, p. 48). If a CISS is the beneficial owner of a dividend, the dividend is exempt from dividends tax under section 64F(1)(l) since 2019 (SARS, 2019, p. 108). Prior to 2019, a CISS could have been subjected to dividends tax if the dividends received were not on-distributed within one year of receipt by the CISS. For capital gains tax purposes, a CISS, or so-called 'equity unit trust', is no longer a company for the purposes of the Income Tax Act since 2009 but is rather treated similarly to a vesting trust (SARS, 2020a, p. 515). Under a typical CISS trust deed, the investors are not entitled to any asset of the portfolio and are also not entitled to vote in relation to any of its assets (SARS, 2020a, p. 515). The CISS must accordingly disregard any capital gain or loss on disposal of assets and the holder of a unit in the CISS is required to determine any capital gain or loss when the participatory interest is disposed of in terms of paragraph 61 of the Eighth Schedule to the Income Tax Act (Republic of South Africa, 2020). A CISS would not be subjected to capital gains tax; however, it could be subjected to dividends tax if dividends are not on-distributed within one year of receipt. The present study submits that CISS institutions would not have been tax neutral in respect of dividends tax in all respects; however, they would have been tax neutral in respect of capital gains tax since the introduction of dividends tax in 2012 in South Africa.

Long-term insurance companies represent the smallest group of institutional investors on the JSE by only a narrow margin compared to collective investment schemes. Long-term insurance companies (i.e. life insurance companies) are required to follow the five-funds approach, with policies divided into five funds based on the nature of the ultimate beneficiaries (PricewaterhouseCoopers, 2019). Each fund is then allocated assets according to the risk carried by the fund and each of the funds is treated as a separate taxpayer and taxed at the rate applicable to that type of fund (30% for individual policyholder funds, and 28% for company policyholder funds, risk policy funds, and corporate funds) (PricewaterhouseCoopers, 2019). For dividends tax purposes, a long-term insurer would also be deemed to be a regulated intermediary if cash dividends allocated to an individual policyholder are

deemed to be paid to a natural person (that is a resident) by the insurer on the date that the dividend is paid to the insurer in terms of section 64I of the Income Tax Act (Republic of South Africa, 2020). For dividends tax purposes, the underlying beneficial shareholder would be subjected to dividends tax in respect of which the long-term insurer would act as a regulated intermediary and recover any applicable dividends tax on behalf of SARS. The present study submits that long-term institutions would have been tax neutral in respect of dividends tax and capital gains tax since the introduction of dividends tax in 2012 in South Africa.

The four categories of institutions considered (Table 2.5) are submitted as being in a tax-neutral position since the introduction of dividends tax as a result of the flow-through principle that applies to institutions. Only CISS would be subjected to tax if distributions are not on-distributed to eventual holders within one year of receipt or accrual and CISS also represents only 10% of the four categories of institutions.

The role of institutional investors and ownership concentration in respect of dividend policies has also not been explicitly examined in prior South African studies. An institutional investor's influence over dividend policy could vary based on the extent of monitoring the institution performs and the level of insider ownership regardless of tax preference (Krupa & Utke, 2020). Dedicated institutional investors who are not tax-sensitive could monitor the company's payout policy and mitigate the potential self-serving behaviour of insiders (managerial ownership) who attempt to minimise their own tax liability (Krupa & Utke, 2020). Where institutional investors are the majority shareholders, a tax-based theory would also merit a better argument to explain a positive relationship between dividend distribution and ownership concentration because of dividend preference (Short et al., 2002). Institutional investors have also been found to improve a company's propensity to pay dividends (Jacob & Lukose, 2018, p. 54S). The consideration of institutional investors is necessary not only in respect of their monitoring role but also because of the possible dividend preferences of institutional investors.

2.10.3 Ownership concentration

Ownership was identified as a recurring theme based on literature (Figure 2.2). The effect of ownership concentration on payout policies has, however, not been considered in the South African context since the 2012 tax reform. Truong and Heaney (2007) included South Africa as one of 37 countries in their study, which found that companies are more likely to pay dividends when the largest shareholder is not an insider and that companies tend to pay fewer dividends when the largest shareholder is either an insider or a financial institution. Truong and Heaney's (2007) study was, however, conducted prior to significant tax reform during 2012 in South Africa, during which time the

introduction of dividends tax resulted in the exemption of certain shareholders, combined with increases in applicable tax rates, which resulted in conflicting tax preferences of shareholders for different payout methods. Dube (2018, p. 17) employed the Herfindahl Index at the top one, two, three, five, and 10 shareholding levels and the types of ownerships in an analysis of effects of ownership on capital structure and corporate performance of South African companies. The aforementioned South African study, however, did not include consideration of ownership concentration in the context of the effect of taxes on the payout policies of companies as intended by the present study. The opportunity was accordingly provided to study the effect of ownership concentration and tax preferences on the payout policies of companies. Ownership concentration was considered in the present study by means of the Herfindahl Index as well as having regard for the largest shareholder of companies. Major shareholders have been submitted as a useful indicator of the concentration of ownership and influence on listed South African companies (Thomas, 2017, p. 15).

The preceding sections emphasise the opportunity for the investigation of investor tax preference parameters in the South African context. The fourth research objective of the present study was to investigate the relationship between changes in payout methods and changes in investor tax preference parameters since the introduction of dividends tax in 2012 (Chapter 8).

2.11 CONCLUSION

The different dividend tax systems applied in other countries were provided as context in respect of which findings from other countries should be interpreted. The variation in dividend tax systems across the world enunciates the problematic nature of transferring findings between countries and the need for country-specific research. When comparing BRICS developing countries, South Africa differs specifically from Brazil, Russia, and China – not solely because of different dividend tax systems being applied (Table 2.2), but also in respect of dividend regulation. Brazil and China have regulations that prescribe or recommend fixed amounts to be distributed as dividends annually. In Russia, dividend regulation is also employed with state-owned companies required to distribute at least 25% of net profit as dividends, with some exemption from this obligation applying (Belousova et al., 2016, p. 47). Furthermore, the fact that China and Russia treat capital gains as ordinary income (Vanteeva & Hickson, 2018) also serves as a distinction from South Africa. In respect of developed countries, most of the literature surveyed indicated a tax effect on payout policies. Only two studies in developed countries considered in the literature review of the present study submitted expectations of a possible tax effect but found a weak or no tax effect on payout policies (Bird, 2013;

Geiler & Renneboog, 2015). More recent literature in respect of developing countries suggests the effect of taxes in payout policy decisions to be more pronounced than the initial mixed results (Ismail et al., 2018, p. 2). South Africa as a developing country and emerging market offer an unique research setting to investigate the effect of tax reform on payout policies in order to contribute to literature.

The three recurring themes formulated in respect of literature (Figure 2.2) were incorporated in subsequent chapters of the present study as follows:

i. The magnitude of tax reform was argued on the basis of the increased role of taxes in Chapter 3 in which an overview of tax reform was provided. Furthermore, in Chapter 5 in which the after-tax values of payout methods were calculated (first research objective of this study).
ii. The anticipation of tax reform was considered in two respects. Firstly, the timing of dividend declarations was investigated in Chapter 6 (second research objective of this study). Secondly, the trend and composition of total payout were argued as a means of postponement or acceleration of payout methods in Chapter 7 (third research objective of this study).
iii. Ownership as a recurring theme was included in Chapter 5 in the calculation of after-tax values of payout methods which distinguished between different categories of investors (first research objective of this study). Ownership classification was further included in Chapter 8 in the calculation of investor tax preference parameters as well as ownership concentration (fourth research objective of this study).

Based on South African literature, the contribution of this study in respect of the four important aspects relating to the effect of taxes in payout policy decisions indicated by Farre-Mensa et al. (2014, p. 103) were considered. For each of these aspects, the related South African literature that could be identified was listed in Table 2.4 to express the aspect to which the present study contributes. The study intended to elucidate whether the differential taxation of dividends versus capital gains affects the supply of dividends – an aspect in respect of which no current South African literature could be found. The literature review relating to the four research objectives of this study further pronounces the research opportunity afforded by South African tax reform. Literature relating to the research objectives of this study also served as basis for the research methodology in Chapter 4. Propositions relating to the four research objectives are developed based on the tax reform (Chapter 3) and after-tax values (Chapter 5).

CHAPTER 3: OVERVIEW OF TAX REFORM IN SOUTH AFRICA FROM 2006 TO 2020

3.1 INTRODUCTION

The magnitude of tax reform is a recurring theme in literature, identified in Chapter 2, which could elicit a payout policy response. The magnitude of tax reform could be indicated by the broadening or narrowing of a tax base by means of a change in tax regime or a change in applicable tax rates. This chapter provides an overview of tax reform in order to formulate a theoretical argument for the increased role of investor-level tax reform on payout policies in South Africa. The increased role of taxes could be indicative of the magnitude of tax reform and serve as a basis to warrant further research in the present study. This chapter concludes with a theoretical argument for the increased role of taxes due to tax reform and theoretical propositions on the effect of taxes on payout policies which are investigated in other chapters. The target period of the present study is related to the financial years of companies which could differ from the tax year of assessment of investors in companies. The tax year of assessment of an individual investor is at the end of February each year and the year of assessment of corporate investors based on their financial years in terms of section 1 of the Income Tax Act (Republic of South Africa, 2020). Consequently, the overview of tax reform in this chapter would extend to the 2020 year of assessment of investors in order to cover the 2006 to 2019 financial years of selected companies (as detailed in section 4.3).

Tax reform in a country could involve a change in the tax system (which includes the types of taxes levied in a country) or a change in the structure of tax rates (Van Heerden, 2013, p. 15). The tax reform contemplated in this chapter, as defined in section 1.5, relates to amendments to the Income Tax Act (Republic of South Africa, 2020) effective before the date of the 2020 South African Budget Speech. Tax reform related to the structure of taxes considered are the amendment of the definition of dividend and the subsequent introduction of dividends tax which represents a change in tax regime. The amendment of the definition of a dividend of the Income Tax Act served as a precursor to the introduction of dividends tax (Morphet, 2007). In addition to the change in tax regime, tax reform due to changes in the structure of tax rates occurred as a result of increases in applicable tax rates (rate of dividends tax and capital gains tax) in South Africa which is elaborated on in this chapter. Tax reform in respect of applicable tax rates would affect the tax preference for payout methods and is considered relevant for the present study. Tax avoidance would have a negative social and economic impact, which is part of tax reform, which anti-avoidance provisions would aim to prevent. Tax reforms

introduced in respect of dividends declared on or after 1 October 2007 did not only broaden the base of taxable dividends but also removed opportunities for perceived tax avoidance schemes relating to the unwinding of existing treasury share structures (Marcus & Gore, 2008; SARS, 2008). The present chapter provides an overview of tax reform in respect of unwinding of treasury share structures under the STC regime and dividends tax regime in order to investigate whether the tax preference for different methods of unwinding these structured changed due to the introduction of dividends tax.

In summary, the overview of tax reform provided in this chapter is structured as follows:

- Reforms to the definition of dividend
- Introduction of dividends tax
- Tax reform of applicable tax rates
- Tax reform of treasury shares

3.2 REFORMS TO THE DEFINITION OF DIVIDEND

As provisions within the Income Tax Act depend on company law principles, the introduction of the Companies Act 71 of 2008 necessitated reforms to the Income Tax Act (National Treasury, 2010, p. 37). A distribution is defined as including a dividend and the repurchase of shares in section 1 of the Companies Act (Republic of South Africa, 2009) – with no definition of dividend being provided. Differences between the definition of distribution contained in the Companies Act and the definition of dividend in the Income Tax Act have been noted (Cliffe Dekker Hofmeyr, 2011). The definition of dividend for tax purposes is regarded as a tax concept not concerned with the presence or absence of profits, accounting treatment, or company law considerations (SARS, 2019, p. 12).

The amended definition of dividend was introduced for tax purposes with effect from 1 January 2011 in section 1 of the Income Tax Act (Republic of South Africa, 2020), of which an extract is included in Appendix B, reads as follows:

> any amount transferred or applied by a company that is a resident for the benefit of any person in respect of any share in that company whether by distribution or as consideration for the acquisition of any share in that company.

The reference to ‘any person’ broadens the scope of the definition as it would then not be limited to the registered owner of the share but rather any person receiving the benefit by virtue of a share. A dividend would also include the transfer of cash or the transfer of assets as dividend in specie (SARS, 2019, p. 28), which further broadens the scope of application.

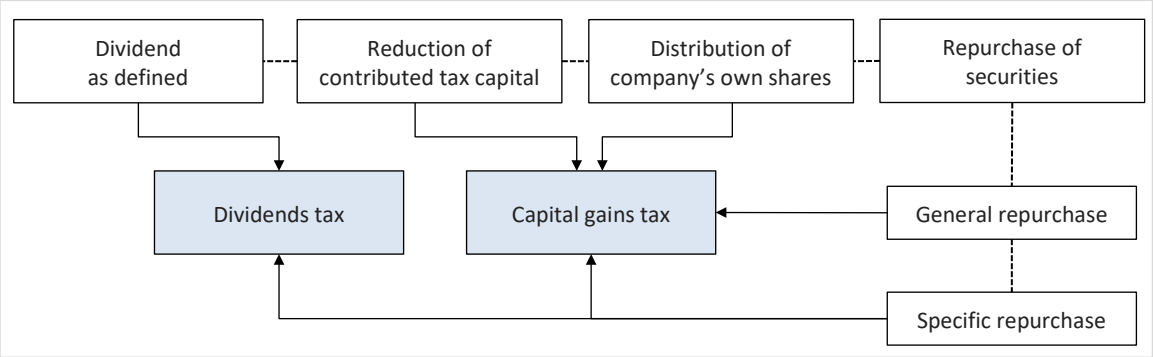
The definition of dividend relates to companies that are residents of South Africa (effectively managed or registered in South Africa). If a company is not a resident of South Africa, the definition of foreign dividend would apply (an extract of this definition from the Income Tax Act is included in Appendix B). A dividend for tax purposes thus has two specific inclusions (a distribution or consideration for the acquisition of shares) and then contains three specific exclusions (a reduction of contributed tax capital (CTC), distribution of the company's own shares, and a general repurchase of securities).

The definition of dividend in the Income Tax Act would also dictate whether the distribution is subjected to dividends tax, normal tax, or capital gains tax. If the investor held the shares as trading stock, with an income intention, the disposal would not be subjected to capital gains tax, but the full consideration received would be included in gross income subject to normal tax. Shares held as trading stock (income in nature) imply that shares are held for speculation purposes with the intention to sell the shares in the short term to realise any short-term gains. If the investor held the shares as an investment, with a capital intention, the disposal would be subjected to capital gains tax and the full consideration received will comprise the proceeds. Shares held as an investment (capital in nature) imply a long-term objective to generate income and realise long-term capital appreciation.

The assumption in the present study is that shares acquired and held by investors are capital in nature resulting in the proceeds on disposal being subjected to capital gains tax (included in normal tax after a capital gains tax inclusion rate has been applied) based on the central concept of 'investor' defined under section 1.5 of this study. The assumption is submitted as conservative in investigating tax consequences as the alternative of full normal tax (without applying a capital gains tax inclusion rate) would have resulted in a higher differential in relation to dividends tax. The assumption in the South African context could also be warranted based on section 9C of the Income Tax Act (Republic of South Africa, 2020), which regards the disposal of shares to be capital in nature, regardless of the intention for which shares are held if shares were held for a continuous period of three years prior to disposal. The three specific exclusions (a reduction of CTC, distribution of the company's own shares, and a general repurchase of securities) would accordingly not be included in the scope of dividends tax, but would rather be considered for capital gains tax purposes. A specific repurchase could result in both dividends tax and capital gains tax consequences (refer to section 3.2.3). The definition of dividend in the Income Tax Act (Republic of South Africa, 2020) and resulting tax consequences are illustrated in Figure 3.1.

Figure 3.1

Dividend definition and tax consequences



The three specific exclusions (a reduction of CTC, distribution of the company's own shares, and a general repurchase of securities) represent different payout methods which could result in capital gains tax instead of dividends tax. Conflicting tax preferences of investors arise as a result of capital gains tax rates and dividends tax assessed at investor level as well as dividends tax only affording exemption to certain investors. From the perspective of a corporate or fund investor, a dividend would be beneficial as a dividends tax exemption would be afforded. In contrast, from the perspective of an individual investor only afforded a dividends tax exemption in specific instances such as a tax-free savings account, a dividend would only be beneficial if the rate of dividends tax is less than the rate of capital gains tax. The investigation of how a company responds when faced with the conflicting preferences of investors could contribute to literature (Badenhorst, 2017) and serves as one of the motivations for the present study (the merits of this study are detailed in section 1.6). Each of the exclusions to the definition of dividend is discussed in subsequent sections.

3.2.1 Reduction of contributed tax capital (capital distributions)

The concept of CTC is a tax concept unrelated to any accounting or company law treatment (SARS, 2019). A company could elect to reduce CTC, yet for accounting purposes pay the amount out of profits. Conversely, a payment out of the company's share premium account for accounting purposes will not represent a reduction of CTC unless the directors elect that the company's CTC is reduced by an equivalent amount.

The exclusion of a distribution which constitutes a reduction of CTC is in recognition of the fact that a dividend should represent the yield of the capital invested by an investor and not a return of the underlying capital itself to the investor (a return of capital). The return of the capital investment by an investor is not viewed as a dividend as the investors are merely receiving their initial contributed corpus (National Treasury, 2008a, p. 10). A reduction of CTC implies that the amount would then not

be a dividend, as defined for tax purposes, and consequently not be considered for dividends tax but rather for other normal tax consequences.

As a reduction of CTC would represent a return of capital as defined in section 1 of the Income Tax Act, the investor could have capital gains tax consequences as stipulated in the Eighth Schedule to the Income Tax Act. The capital gains tax consequences in respect of a reduction in CTC would depend on whether the investor disposed of the underlying shares during the year of assessment or not:

i. If an investor did not dispose of the underlying shares as a result of a reduction in CTC the capital gains tax consequences would be deferred. As the underlying shares are still held, the reduction in CTC would be applied in reducing the base cost of the underlying shares and considered for capital gains tax consequences only when the shares are eventually disposed of in terms of paragraph 76B of the Eighth Schedule to the Income Tax Act (Republic of South Africa, 2020). Prior to the introduction of dividends tax, a return of capital would have been regarded as a part-disposal for capital gains tax purposes in terms of paragraph 76A of the Eighth Schedule to the Income Tax Act (Republic of South Africa, 2020), resulting in potential capital gains tax consequences in the year in which the taxpayer received the return of capital.
ii. If an investor disposed of the underlying shares, a return of capital would be subjected to capital gains tax if the reduction in CTC received (proceeds) exceeded the expenditure incurred by the investor in respect of the share (base cost). A return of capital represents the initial investment by an investor and, if the same investor received the return of capital, the proceeds would equal base cost, and consequently no capital gains tax consequences would arise. Provisions of the Income Tax Act could, however, deem the base cost for an investor on acquisition of shares to be at market value which could differ from the initial investment and result in capital gains tax consequences. If an investor, for example, received the shares by means of a disposal by way of a donation or from a connected person, the investor would be deemed to have acquired the shares at the market value in terms of paragraph 38(1)(b) of the Eighth Schedule to the Income Tax Act (Republic of South Africa, 2020). If the investor subsequently receives proceeds (an amount in respect of a reduction in CTC), the base cost would be the market value of the shares, resulting in capital gains tax consequences. Accordingly, a reduction of CTC could result in capital gains tax consequences in instances where the investor received the reduction in CTC but did not initially contribute capital to the company but rather acquired the shares from another investor.

The introduction of paragraph 76B, and the repeal of paragraph 76A, in the Eighth Schedule to the Income Tax Act since the introduction of dividends tax is submitted as a tax reform beneficial to investors since the capital gains tax consequences in respect of a return of capital would be deferred until eventual disposal of the underlying shares. In addition, the fact that a reduction of CTC is excluded as a dividend would affect the tax preference of such distribution and enunciate the conflicting tax preference of investors. In respect of payout policies, this study argues that the introduction of CTC as a tax concept from 1 January 2011 allows for tax planning in the fact that a reduction of CTC is a tax concept and is adopted at the discretion of a company. If no reduction of CTC is announced, the distribution would constitute a dividend and not be subjected to the capital gains tax which could have applied.

The directors, or other persons with comparable authority, must by the date of transfer determine that such a transfer constitutes a transfer of CTC, otherwise no reduction of CTC can occur and the amount transferred will be a dividend (SARS, 2019, p. 19). A reduction in CTC determined by the directors is also subject to a limitation in terms of the Income Tax Act (Republic of South Africa, 2020). A reduction of CTC must not exceed an amount that bears to the total of the amount of CTC attributable to that class of shares immediately before the transfer in the same ratio as the number of shares of that class held by that person bears to the total number of shares of that class in terms of proviso to the definition of contributed tax capital in section 1 of the Income Tax Act (Republic of South Africa, 2020). By implication, the amount determined by the directors as a reduction of CTC may not exceed the actual reduction in CTC in respect of shares. The proviso serves as an anti-avoidance provision in the sense that directors cannot determine an amount as the reduction of CTC which exceeds the actual reduction of the existing CTC.

3.2.2 Distribution of company's own shares (additional shares)

The transfer of a company's own shares does not result in an outflow of overall value from the company since all the underlying assets remain within the company, which merits the argument that the transfer of own shares is not a dividend (SARS, 2019, p. 34). The exclusion of a transfer of the company's own shares could also be in recognition of the fact that the issuing of shares to an investor dilutes the existing shareholding of an investor and not be regarded as a dividend. The exclusion applies to any share in a company and is not limited only to an equity share, as was the case prior to the amendment of the dividend definition. The amended definition eliminated the need to distinguish between equity and non-equity capitalisation shares since 2011 (SARS, 2020a, p. 744).

3.2.3 Repurchase of securities (share repurchases)

The exclusion of a general repurchase, as contemplated in paragraph 5.67(B)(b) of section 5 of the JSE Limited Listings Requirements, as of 1 January 2011 is the tax reform of specific interest in the present study. The general repurchase of listed shares refers to an open market share repurchase and, typically, in such a situation the company would instruct its stockbroker to purchase a certain number of shares on the market (SARS, 2014, p. 47). In respect of JSE-listed companies a distinction between two types of repurchases in South Africa can be made (JSE, 2017, Listings Requirements, paragraph 11.26 & paragraph 11.23):

- A general repurchase comprises the repurchase of shares on the open market.
- A specific repurchase is a repurchase of shares from a specific or defined investor (JSE, 2019a). A specific repurchase could be achieved by means of a pro-rata offer or specific offer to the defined investor (JSE, 2017, Listings Requirements, paragraph 11.24 & paragraph 11.25). A pro-rata offer would be a repurchase of shares in proportion to the current shareholding of the defined investors.

The distinction between the different types of repurchases in South Africa from a tax perspective is of importance owing to the tax treatment of the different types of share repurchases based on the 2011 reforms. As a general repurchase is excluded as a dividend as defined in the Income Tax Act, the full proceeds will be taken into account in the capital gains tax calculation of the investor – there will be no reduction of proceeds in terms of paragraph 35(3)(a) of the Eighth Schedule to the Income Tax Act (Republic of South Africa, 2020) as no dividend would have been included in gross income. SARS (2014, p. 47) indicated that there should not be a split of consideration between a dividend and a non-dividend element (a return of capital) in recognition of the fact that the investor would be unlikely to know when a JSE-listed company performed a general repurchase on the open market.

The exclusion of general repurchases could also assist taxpayers by eliminating the apparent double incidence of taxation (Deneys Reitz, 1999). Double taxation arises if the repurchasing company regards the consideration paid as a dividend (consequently subjected to STC or dividends tax), and the investor, unaware of the repurchase, also accounts for the consideration received as proceeds on disposal of the shares (consequently subjected to capital gains tax). Furthermore, such a general repurchase is not a return of capital as defined in the Income Tax Act (Republic of South Africa, 2020). The fact that a general repurchase is neither a dividend nor a return of capital does not entail that any consideration received falls outside the tax net. Consideration received for a general repurchase would still constitute proceeds accruing to the investor in respect of the disposal for capital gains tax

purposes. The investor would accordingly be taxed on the difference between the proceeds and the base cost of the shares.

A specific repurchase of shares also constitutes a disposal for the investor for capital gains tax purposes. A specific repurchase is not excluded as a dividend and would require a necessary split of the consideration between the dividend and non-dividend elements. The investor is not required to perform the split between the dividend and the non-dividend elements; instead, the company should provide the investor with this information (SARS, 2014, p. 47). The dividend element is subjected to dividends tax and the non-dividend element is subjected to capital gains tax provisions.

The tax treatment of the different types of share repurchases before and after the 2011 reform of the dividend, as defined in the Income Tax Act, is submitted in Table 3.1.

Table 3.1

The classification of types of share repurchases as dividend as defined for tax purposes

Type of repurchase	Prior to 2011 reform	Subsequent to 2011 reform
General repurchase	No distinction between a general repurchase or specific repurchase. Treated as a dividend to the extent that distribution exceeds the nominal value of shares repurchased (and not repurchased by utilising share premium).	Not a dividend as defined.
Specific repurchase		A dividend as defined to the extent of exceeding CTC.

The definition prior to the 2011 reform included no distinction between a specific and general share repurchase and both would previously have constituted a dividend, as defined in the Income Tax Act. The evident difference between the different types of share repurchases is the exclusion of a general repurchase as a dividend as of 1 January 2011. Excluding a general repurchase as a dividend is a practical exclusion, as the investor may perhaps be unaware of the repurchase. The fact that general repurchases are not regarded as dividends entails that the dividends tax exemption afforded to certain taxpayers would be forfeited, which will affect the tax preference of general repurchases depending on the category of taxpayer.

3.3 INTRODUCTION OF DIVIDENDS TAX

The repeal of STC levied at company level and the introduction of dividends tax levied at investor level represented a significant tax regime reform. The STC regime was introduced in South Africa during 1993 in order to encourage companies to retain (and reinvest) their profits instead of declaring dividends (National Treasury, 2008a, p. 5). The introduction of STC was accompanied by a lowering of the normal tax rates of companies and resulted in a dual corporate tax system being applied – normal tax being taxable income and STC being levied on cash dividends distributed (Graham, 1999, p. 63). South Africa, at the time, was one of only three countries worldwide to have a system of taxing distributions of profits at company level (Roeleveld, 2015, p. 117). Reforms of STC were announced during 2007 first and foremost owing to the fact that STC was generally considered out of line with international tax norms (National Treasury, 2008a, p. 4). The fact that STC was a company-level tax resulted in tax treaty relief not being afforded, the accounting profits of South African companies being adversely affected, and concerns that STC raised the cost of equity financing to the detriment of economic growth (National Treasury, 2008a, p. 4). The first phase of STC reform entailed the reduction of the STC rate to 10% and a revision of the tax base (namely, the definition of dividend) on which STC relied (SARS, 2019, p. 2). The second phase of STC reform was the repeal of STC and the introduction of dividends tax during 2012 (SARS, 2019, p. 2).

Although the introduction of dividends tax was announced in February 2007, the actual effective date was only 1 April 2012, with the main scapegoat for delay submitted as the resulting the review of double tax agreements (Roeleveld, 2015, p. 131). Since tax regime changes are external to the company, an opportunity is afforded to study the responses of companies and investors to such tax regime changes (Korkeamaki et al., 2010). The change in the tax regime in South Africa has provided the opportunity to investigate whether tax reform resulted in a change in the preference of investors for different payout methods and the resulting effect, if any, on payout policy decisions. The change in tax regime to dividends tax also represented a shift from a company-level to an investor-level tax in terms of which exemption from dividends tax is afforded based on the nature of a beneficial owner. An investor would be the beneficial owner of a share unless the right and benefits attached to a share are transferred to another person. As a dividends tax exemption is dependent on the classification of the investor (as individual, corporate, or institution), the classification of each investor is also more important than under the previous STC regime. The introduction of dividends tax resulted in the possibility of dividend tax arbitrage arising for the first time as only certain investors are exempt from dividends tax (Marcus & Toerien, 2014, p. 100). Only persons listed in section 64F of the Income Tax Act (Republic of South Africa, 2020) would qualify for exemption from dividends tax. The exemption

from dividends tax is also argued as an elective exemption as opposed to an automatic exemption as investors are required to submit a declaration to the declaring company before the obligation to withhold dividends tax is no longer required in terms of section 64G(2) of the Income Tax Act (Republic of South Africa, 2020).

An individual investor (natural person) is only afforded an exemption from dividends tax if dividends are from tax-free investments contemplated in section 12T of the Income Tax Act (Republic of South Africa, 2020) or if the individual investor is a non-resident in terms of which a double tax agreement provides relief (the provisions of double tax agreements are not included in the present study and this exclusion is accordingly included as a limitation in the scope of the present study). An individual investor would, consequently, save for the specific exemption, be subjected to dividends tax and not be afforded an absolute exemption as with other types of investors. A corporate investor (or company) would be exempt from dividends tax in terms of section 64F(1)(f) of the Income Tax Act (Republic of South Africa, 2020), which was not available under the STC regime.

A fund investor, representing the main institutional investor based on holdings in JSE-listed equities (Thomas, 2017), would also be afforded an exemption from the dividends tax regime similar to a corporate investor, which exemption was not available under the STC regime. The exemption from dividends tax in terms of section 64F(1)(f) of the Income Tax Act is granted to a beneficial owner that is a fund, as contemplated in section 10(1)(d)(i-ii) of the Income Tax Act, thus including the following funds: pension, pension preservation, provident, provident preservation and retirement annuity. Cobbett (2008) estimated that the exemption of funds from dividends tax was at a cost of R6 billion to the South African fiscus in the first year. Filen (2011) also recognised that a similar exemption was not available under the STC regime and the purpose could have been to provide a further stimulus for retirement saving. Funds contemplated in section 10(1)(d) of the Income Tax Act are exempt from normal tax, including capital gains tax in terms of paragraph 63 of the Eighth Schedule to the Income Tax Act (Republic of South Africa, 2020), and were also exempt from dividends tax as of 1 April 2012. These funds, constituting institutional investors, also account for the majority of the overall volume of shareholding on the JSE in South Africa (JSE, 2016). Such shareholding might significantly differ between individual companies and would not necessarily account for most of the volume in each individual company. A company with a larger percentage of institutional ownership could have the opportunity to postpone dividend payments pending the introduction of dividends tax in order to utilise an exemption afforded in order to maximise the after-tax value of an institutional investor. Where institutional investors are the majority investors, a tax explanation for a positive relationship

between dividend distribution and ownership concentration because of dividend preference could be warranted (Short et al., 2002). Regarding tax reforms in respect of institutional investors, the reform of note is the fact that stipulated funds are exempt from dividends tax with effect from 1 April 2012. Institutional ownership (defined as public ownership) has also been held as a significant factor that affects a JSE-listed company's choice when deciding between an open market share repurchase and a special dividend for the period 1999 to 2009 (Wesson et al., 2018, p. 22).

3.4 TAX REFORM OF APPLICABLE TAX RATES

In addition to the change in tax regime, tax reform due to changes in the structure of tax rates in South Africa also occurred as a result of increases in applicable tax rates. Increases in the inclusion rate of capital gains tax, combined with increases in normal tax rates, resulted in changes in the effective rate of capital gains tax. As a payout method could be subjected to capital gains tax or dividends tax, the differential taxation of dividends versus capital gains tax is a relevant tax reform considered in this chapter.

With reference to the definition of dividend (Figure 3.1), consideration of the tax rates of both dividends tax and capital gains tax is required. The effective capital gains tax rate is the product of a capital gains tax inclusion rate in taxable income and normal tax rates. The capital gains tax inclusion rates as well as the normal tax rates in South Africa can be amended during the Budget Speech in February of each year. Consecutive increases in the capital gains tax inclusion rate in South Africa from 1 March 2012 resulted in companies currently standing to include 80% (compared to initial 50% when capital gains tax was introduced) and individuals including 40% (compared to 25% when capital gains tax was introduced) of aggregate capital gains in taxable income. Announced increases in the capital gains tax inclusion rate and normal tax rates are not applicable with immediate effect but rather applicable in respect of tax year of assessments after the announcement date. Increases applicable to individual taxpayers announced during the Budget Speech in February of a specific year would apply to the year of assessment ending at the end of February of the next year. Increases applicable to corporate taxpayers announced during the Budget Speech in February of a specific year would apply to financial years ending between April of the specific year and March of the next year. Tax reform which is announced and subsequently becomes effective results in anticipation of the introduction of the tax reform. The extent to which tax reforms are anticipated has been found to elicit a payout policy response (Farre-Mensa et al., 2014, p. 100). The anticipated increases in the inclusion rate of capital gains tax and normal tax rates provide an opportunity for the effect of such tax reform on payout policies to be investigated.

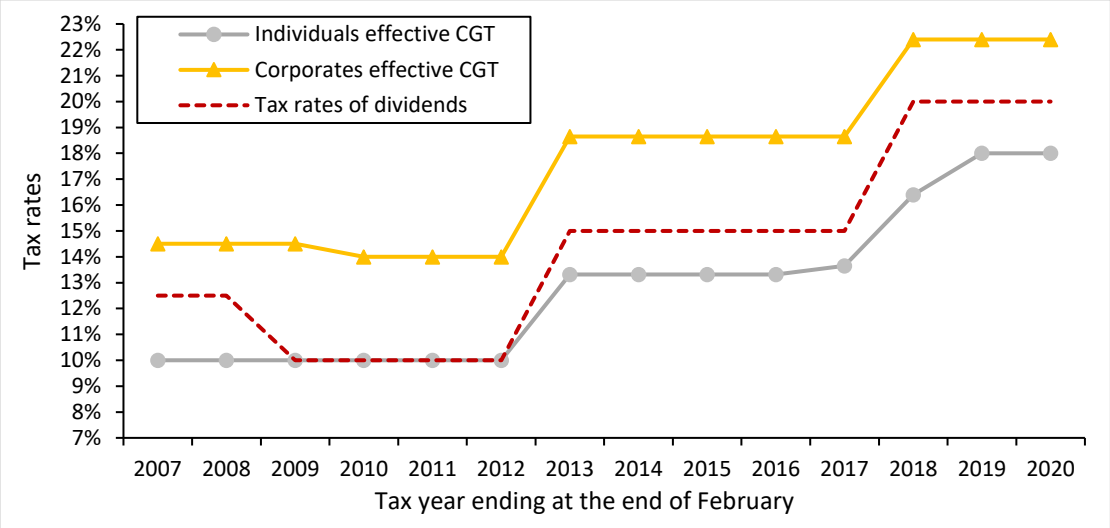
The rate at which dividends are taxed in South Africa could also be amended during the Budget Speech in February of each year. Since 2008 the STC rate remained unchanged at 10%. The dividends tax rate on introduction in 2012 was 15% and increased to 20% in respect of dividends paid on or after 22 February 2017. The immediate implementation of the increase in the dividends tax rate (on the day after the Budget announcement) is indicative of a measure necessary to prevent tax avoidance (Ensor, 2017). The increase in the rate of dividends tax would adversely affect the tax preference for dividends for an investor not exempt from dividends tax, whereas an increase in the rate of capital gains tax levied on payout other than dividends would increase the tax preference for dividends for an investor exempt from dividends tax. The capital gains tax inclusion rate for individuals and special trusts was increased with effect from 1 March 2012 from 25 to 33.3%, and for companies and other trusts from 50 to 66.6% (National Treasury, 2012, p. 14). Increases in the capital gains tax inclusion rates were in order to reduce the scope for tax arbitrage and broaden the tax base with the impact on middle-income earners mitigated by increased capital gains tax exclusion thresholds (National Treasury, 2012, p. 14). The capital gains tax inclusion rates of individuals were again increased from 33.3% to 40% and the capital gains tax inclusion rate for companies from 66.6% to 80% in respect of years of assessment commencing on or after 1 March 2016.

As the effective capital gains tax rate is a function of the capital gains tax inclusion rate and normal tax rates, increases in normal tax rate also required consideration. Individuals in South Africa are taxed on progressive normal tax rates and a distinction is made between individuals taxed at the highest marginal normal tax rate (‘higher-rate’ individuals) and individuals taxed at the lowest marginal normal tax rate (‘lower-rate’ individuals). In view of the target period of this study, three increases in normal tax rates were relevant in respect of corporate and higher-rate individuals. The corporate tax rate was reduced from 29% to 28% during 2008 after a period of higher economic growth and improved corporate compliance (National Treasury, 2008b, p. 20). The reduced corporate tax rate was intended to contribute to lowering the cost of capital for new investment (National Treasury, 2008b, p. 20). A slowdown in business conditions during 2015 reflected lower-than-expected tax revenue (company tax, value added tax, and customs revenue) resulting in personal income tax being reformed as a buoyant source of revenue (National Treasury, 2015, pp. 18–19). Personal income tax rates were accordingly increased by one percentage point for all taxpayers except for lower-income taxpayers (National Treasury, 2015, pp. 18–19), resulting in the maximum normal tax rate of higher-rate individuals being increased from 40% to 41%. A further revenue shortfall during 2017 resulted in the maximum normal tax rate of higher-rate individuals further increasing from 41% to 45% (National Treasury, 2017, pp. 11–12).

Increases in applicable tax rates could consequently result in conflicting tax preferences between different taxpayers and afford an opportunity to investigate the differential tax on dividends and capital gains tax. The differential tax on dividends and capital gains tax from the 2007 to 2020 years of assessment are illustrated in Figure 3.2, in which higher-rate individuals are included to demonstrate the maximum differential between taxes for individuals.

Figure 3.2

Increases in applicable tax rates



Note. The graph represents the tax rates of each year of assessment obtained from SARS tax pocket guides (SARS, n.d.).

As observed from Figure 3.2, the differential of tax on dividends and capital gains tax has been more evident since the introduction of dividends tax in 2012 owing to increases in the applicable tax rates. For a higher-rate individual, the dividends tax rate exceeded the effective capital gains tax rate since the introduction of dividends tax, which could indicate a preference for payout methods resulting in a capital gains tax consequence instead of a dividends tax consequence. For a corporate taxpayer, consecutive increases in the effective capital gains tax rate combined with an exemption from dividends tax would indicate a preference for payout methods resulting in dividends tax and not capital gains tax. The conflicting preferences of different investors prior to the introduction of dividends tax (2007 to 2012) became more pronounced because of increases in tax rates since the introduction of dividends tax and emphasises the conflict of preferences, which is submitted as an argument for the increased role of taxes since the introduction of dividends tax.

3.5 TAX REFORM OF TREASURY SHARES

At the most basic level, treasury shares are fully paid issued shares of a company that have subsequently been repurchased by that company (by way of purchase, redemption, forfeiture, donation, or otherwise) and which shares the company is permitted to reissue instead of having to cancel (Cassim, 2003). Treasury shares confer additional flexibility over the management of the capital structure of companies, which is in line with the stated purpose in section 7(b)(ii) of the Companies Act of 2008 to promote the development of the economy by creating flexibility and simplicity in the formation and maintenance of companies (Cassim, 2010). Treasury shares could also offer a less burdensome and less expensive alternative to other share repurchases which would require the cancellation of the repurchased shares before the shares can be reissued (Cassim, 2010). Treasury shares in South Africa provide for a unique setting as these shares are not limited to shares held by a company subsidiary, but include a share trust controlled by a listed company (JSE, 2017). However, as the JSE Listings Requirements (in the sections dealing with share repurchases) do not include any requirements pertaining to the repurchase of holding company shares by share trusts, such repurchases are not required to be announced via Stock Exchange News Service (SENS) (Wesson, 2015). Owing to their not being announced via SENS and their inadequate disclosure in the annual financial statements of companies, an empirical study of share repurchases in respect of share trusts controlled by listed companies is not always possible (Wesson, 2015, p. 75). Apart from the share repurchases by a share trust, which is not regulated by the JSE Listings Requirements, there are corporate law, accounting treatment, and tax legislation that apply to treasury shares.

The corporate law treatment of treasury shares is prescribed by legislation. The Companies Act, in section 35(5)(a), provides that shares of a company that have been issued and subsequently acquired by that company have the same status as shares that have been authorised but not issued (Republic of South Africa, 2009). Accordingly, issued shares are cancelled and restored to authorised shares which have not been issued. Section 35(5)(a) of the Companies Act effectively precludes the direct holding of treasury shares in South African corporate law with only one concession being afforded (Cassim, 2010, p. 163). The concession contained in the Companies Act permits treasury shares to be held by a subsidiary but limited to a maximum of 10% in the aggregate of the issued shares of any class of shares of a holding company in terms of section 48(2)(b) of the Companies Act (Republic of South Africa, 2009). Since the holding company cannot become its own investor, nor have a proprietary interest in itself, section 48(2)(b)(ii) correctly provides that while the shares are held by a subsidiary no voting rights attached to the shares may be exercised (Cassim, 2010). The exclusion of

direct holding of treasury shares by a company in South African corporate law has been questioned in previous studies (Cassim, 2010; Gondwe, 2015).

The accounting treatment of treasury shares is prescribed in terms of accounting standards and was relevant for consideration in this study as background to the data collection in respect of share repurchases (elaborated on in the research methodology in Chapter 4). If an entity repurchases treasury shares, the consideration paid or received is recognised directly in equity (IASB, 2018a, IAS 32, paragraph 33). Furthermore, no gain or loss is recognised in profit or loss in respect of such shares on the purchase, sale, issue, or cancellation of such shares for accounting purposes (IASB, 2018a, IAS 32, paragraph 33). The current wording is also specific in that such treasury shares may be acquired and held by the entity or by other members of the consolidated group (IASB, 2018a, IAS 32, paragraph 33). The wording in IAS 32 Financial Instruments: Presentation (IASB, 2018a, IAS 32) is based on the principles and definitions of treasury shares in the UK which differ from the definition of treasury shares in South Africa. South African companies could, as a consequence, encounter difficulty in interpreting the accounting requirements of the International Financial Reporting Standards correctly owing to the contexts of the UK and South Africa which differ (Wesson & Hamman, 2012, p. 35). The inclusion of share trusts as part of treasury shares in terms of the JSE Listings Requirements also requires such shares held by a consolidated share trust to be deducted from equity despite the IASB standards not requiring specific disclosure thereof.

The acquisition of shares by a subsidiary in their holding company is known as a ‘buy-in’ of shares as opposed to a ‘buy-back’ of shares (SARS, 2010, p. 94) and the buy-in is regarded as an indirect share repurchase by the holding company (Bhana, 2006, p. 236). A subsidiary is allowed to retain shares in a holding company subject to the 10 percent limitation, which is argued as a possible curtailment of potential abuse of treasury shares (Gondwe, 2015, p. 75). The indirect repurchase of own shares (via a subsidiary) allowed in South Africa is disregarded in other jurisdictions such as the UK, which only allows for the direct repurchase and holding of treasury shares by a company (Gondwe, 2015, p. 84). If a subsidiary has acquired shares and retains the shares, no dividend would be declared since no amount is distributed (SARS, 2010). On the same principle, if a share trust has acquired shares and retains such shares, no tax consequences would also arise as no amount is transferred or distributed to the holding company. On this basis, treasury shares acquired and retained by a subsidiary (or share trust) would not have tax consequences if such shares are retained by the subsidiary or share trust.

A treasury share structure could also then be unwound if the subsidiary (or share trust) disposes of or distributes the treasury shares previously acquired. The unwinding of treasury share structures which

involves the holding company acquiring the shares from a subsidiary was subject to specific tax reform under the STC regime. Tax reforms introduced in respect of dividends declared on or after 1 October 2007 did not only broaden the base of taxable dividends but also removed opportunities for perceived tax avoidance schemes relating to the unwinding of existing treasury share structures (Marcus & Gore, 2008; SARS, 2008). The two methods of unwinding treasury share structures, which form the subject of tax reform under the STC regime, are illustrated by Marcus and Gore (2008) as: (i) the holding company could repurchase the treasury shares from the subsidiary, or (ii) the subsidiary could distribute treasury shares to the holding company as dividends in specie.

Under the STC regime prior to the tax reform, a dividend declared by a company to another company within the same group of companies was afforded an exemption from STC, referred to as the STC group exemption. The STC group exemption intended to defer the liability for STC until such time as a dividend is declared to an investor not part of the group of the declaring company – the exemption should not apply if the STC is permanently exempt and not merely deferred (National Treasury, 2005). The tax reform contained in an amendment to the provisos to section 64B(5)(f) of the Income Tax Act resulted in the STC group exemption not applying where a controlling (holding) company makes a distribution to its subsidiary and the distribution consists of shares in the holding company (Marcus & Gore, 2008). The STC group exemption would, as a result of the tax reform, not have applied if the company declared a dividend to an investor within the same group of companies and such dividend consisted of shares in the investor. The policy intervention of amending the STC group exemption during 2009 resulted in both methods of unwinding treasury share structures being subjected to STC (Marcus & Gore, 2008). In the South African context, shares in a holding company by a share trust are also regarded as a treasury share, and consideration of the unwinding of treasury share structures pertaining to share trusts is also submitted as warranted. An investigation under the dividends tax regime would also enable a conclusion on whether the tax treatment of the two methods of unwinding a treasury share structure is aligned and a conclusion on a tax preference for one method of acquisition over another.

An investigation of tax reform relating to treasury shares is submitted as necessary owing to tax reform which could inform tax preference for such repurchases. The tax preference for share repurchases would then culminate in propositions in respect of payout policies, which will be investigated in subsequent chapters.

The objective of this section was to investigate the tax treatment of the following methods in terms of which a listed holding company could unwind existing treasury share structures under the STC regime and the dividends tax regime:

- A holding company repurchasing the treasury shares from a subsidiary or share trust
- A subsidiary distributing treasury shares to a holding company as dividends in specie
- A share trust distributing treasury shares to a holding company

3.5.1 A holding company repurchasing the treasury shares from a subsidiary or share trust

Shares in the holding company can be acquired by a subsidiary (or share trust) and held as treasury shares. The unwinding of such a treasury structure would then entail the holding company repurchasing such treasury shares from the subsidiary (or share trust).

The repurchase of own shares by a holding company would constitute a dividend under the STC regime and the STC group exemption would not apply as the holding company is not a controlled group company (Huxham & Haupt, 2008, p. 356). Under the STC regime, a liability for the holding company could arise for the repurchase amount which exceeds the nominal value of the share repurchases. If the holding company repurchased the shares from the subsidiary at below the market value of the shares, the subsidiary would also have a deemed dividend to the extent that no consideration is received for purposes of section 64B as an asset (the shares) would have been transferred (Huxham & Haupt, 2008, p. 356). The deemed dividend of the subsidiary would then not qualify for the STC group exemption, resulting in the subsidiary being subjected to STC. The subsidiary would also have disposed of an asset (shares held in the holding company) and consequently be subjected to capital gains tax in respect of the share repurchase. For capital gains tax purposes the proceeds received by the investor would exclude any portion of the consideration that constitutes a dividend in terms of paragraph 35(3) of the Eighth Schedule (SARS, 2014). As the share repurchase would have constituted a dividend, such amount would have been excluded, resulting in no capital gains tax consequences to the extent that the amount received from the holding company is not a dividend. If the holding company reacquires the shares from a share trust at below the market value of the shares, the share trust would not be subjected to STC as share trusts would not classify as a company as defined in section 1 of the Income Tax Act (Republic of South Africa, 2020). However, if distributed at no consideration, a liability for possible donations tax could arise. Donations tax is a tax levied at a rate of 20% on the aggregated value of property donated not exceeding R30 million and at a rate of 25% on the value exceeding R30 million in terms of section 64(1) of the Income Tax Act (Republic of South Africa, 2020). A donation is defined as any gratuitous disposal of property, including any gratuitous

waiver or renunciation of a right in terms of section 55 of the Income Tax Act (Republic of South Africa, 2020).

Therefore, under the STC regime the unwinding of such treasury structure by means of the holding company repurchasing such treasury shares from the subsidiary (or share trust) would have been subjected to STC without any exemption afforded in terms of the STC group exemption. The holding company would be subjected to STC on the consideration paid in excess of the nominal value of the shares. The subsidiary could also be subjected to STC if the consideration from the holding company were below the market value of the shares reacquired. The share trust would have to consider donations tax if the consideration from the holding company was below the market value of the shares reacquired.

For the share repurchase by the holding company, the dividends tax consequences would depend on the type of repurchase initiated by the holding company – a general repurchase or a specific repurchase. Bester et al. (2010) posit that the repurchase by a holding company of treasury shares held by subsidiaries constitutes a specific repurchase. Furthermore, the fact that the subsidiary is known to the holding company is also an argument that a repurchase by the holding company from the subsidiary is a specific repurchase (Wesson et al., 2015). The repurchase of treasury shares from a subsidiary or share trust is therefore submitted as a specific repurchase of shares (Figure 3.1).

A specific repurchase of shares from only the subsidiary would be a dividend as defined in the Income Tax Act (Republic of South Africa, 2020), subject to dividends tax, to the extent that any consideration exceeds a reduction in CTC attributable to the investor. A resident company subsidiary would then be able to submit a declaration for exemptions from dividends tax in terms of section 64F of the Income Tax Act (Republic of South Africa, 2020). The definition of treasury shares in terms of JSE Listings Requirements could also include a share trust and is not limited to a company subsidiary (JSE, 2017). If the specific repurchase is from a share trust, and not a resident company subsidiary, the share trust investor would not qualify for any exemptions in terms of section 64F of the Income Tax Act (Republic of South Africa, 2020). The classification of an investor, which enables exemption from dividends tax in terms of section 64F of the Income Tax Act (Republic of South Africa, 2020), results in differential treatment under the dividends tax regime, which was not the case under the STC regime. A specific repurchase would constitute a dividend as defined to the extent that consideration exceeds a reduction in CTC. The amount of any dividend as defined would then be excluded from proceeds for purposes of determining the capital gains tax consequences of the subsidiary (or share trust) in terms of paragraph 35(3) of the Eighth Schedule to the Income Tax Act (Republic of South Africa, 2020).

3.5.2 A subsidiary distributing treasury shares to a holding company as dividends in specie

As the holding company is the owner of the subsidiary the distribution of shares to the holding company would not be required to be at adequate consideration and could be distributed as a dividend in specie. A treasury share structure could be unwound if a subsidiary distributed treasury shares, held in the holding company, to the holding company at no consideration as a dividend in specie.

The dividend in specie distributed by the subsidiary to the holding company could be considered for the STC group exemption if declared before 1 October 2007. In respect of dividends declared on or after 1 October 2007, the STC group exemption would not have applied, resulting in such indirect share repurchase being subjected to STC. A subsidiary would consequently be barred from electing to apply for the exemption from STC in respect of a dividend in specie consisting of shares in the holding company to prevent a permanent exemption of profits within a group (SARS, 2010, p. 94). Furthermore, any reduction in the holding company's profits as a result of cancelling shares would be regarded as an outgoing dividend declared by the holding company according to paragraph (cA) of dividends as defined at the time and such dividend would be subjected to STC (SARS, 2010). The holding company would, however, be allowed to deduct the dividend received from its subsidiary in calculating its STC liability or STC credit (SARS, 2010, p. 26). The holding company would consequently set off the dividend in specie received from its subsidiary against the deemed dividend declared, thus resulting in no STC being payable by the holding company (Huxham & Haupt, 2008, p. 355–356). A dividend in specie would also result in a disposal for the distributing company (subsidiary) in terms of paragraph 75 of the Eighth Schedule to the Income Tax Act (Republic of South Africa, 2020). Consequently, a dividend in specie that attracted STC could also be treated as a disposal for capital gains tax purposes in the hands of the distributing company (Edward Nathan Sonnenbergs, 2007). A subsidiary distributing treasury shares, held in the holding company, to the holding company would consequently be liable for capital gains tax on the difference between the market value of the shares and the base cost of such shares. In summary, under the STC regime, the distribution of treasury shares to a holding company would have been subjected to STC subsequent to 1 October 2007 since no STC group exemption is afforded.

As dividend in specie, the liability for dividends tax would shift to the subsidiary declaring the dividend and not the beneficial owner of the dividend. The dividend would then only be exempt from dividends tax if the beneficial owner is a resident company or forms part of the same resident group of companies as defined (requiring a direct interest of at least 70%) as the company that declares and

pays the dividend (SARS, 2019, p.104). This exemption from dividends tax also has administrative relief in that no declaration would be required to be submitted for such exemption within the same group of companies. The distribution of a subsidiary of treasury shares to a holding company thus qualifies for exemption from dividends tax if the holding company is a resident. Shares distributed in specie would, however, result in a capital gains tax consequence for the subsidiary as proceeds on such a disposal is deemed to be at the market value of the shares in terms of paragraph 75 of the Eighth Schedule to the Income Tax Act (Republic of South Africa, 2020). This disposal for capital gains tax purposes would occur regardless of actual consideration involved in the distribution. A subsidiary would be liable for capital gains tax on the difference between the market value of the shares distributed and the base cost of such shares.

Under the dividends tax regime, the distribution of treasury shares to a holding company would accordingly not have been subjected to dividends tax owing to an exemption being afforded. The dividends tax exemption afforded could increase the tax preference for this method for a holding company to acquire shares.

3.5.3 A share trust distributing treasury shares to a holding company

The shareholding of a share trust in a listed holding company can constitute treasury shares in terms of the JSE Listings Requirements (JSE, 2017). An important point of distinction between a subsidiary and a share trust, in respect of the unwinding of a treasury share structure, is the underlying beneficial owner in each scenario. Despite a listed company being required to control a share trust to be regarded as treasury shares, the trust is not necessarily established for the benefit of the holding company. A trust is created and assets of the trust are managed by trustees in terms of a trust deed for the benefit of beneficiaries. The typical example of a share trust is one established for the benefit of employees as a share incentive initiative (Fouché, 2012). The National Treasury and SARS have historically viewed share incentive schemes with suspicion and seemingly continue to consider share plans as tax avoidance plans which are a threat to the fiscus (Hunt, 2014, p. 55; Isaacman, 2017, p. 1). As a result, various proposals have been submitted by Treasury to aggressively tax amounts that are associated with the share incentive plans as remuneration (Hunt, 2014, p. 55).

The conduit principle underlies the tax consequences of trusts, which result in the income accrued to a trust retaining its nature in the hands of beneficiaries. Beneficiaries can then obtain the benefit of the tax exemptions of income, such as interest and dividends, which retain their nature if received from a trust. The Davis Tax Committee has proposed the removal of the conduit principle and taxing trusts as separate taxpayers – which could remove some of the benefits of the conduit principle and

change the way taxpayers use employee share scheme trusts in the future (Lock, 2016, p. 64). The valid motives, apart from possible tax benefits, such as the use of share incentive plans to encourage employees to take ownership of their company and increase performance by aligning the interest of the individuals with those of the investors should however also be recognised (Hunt, 2014, p. 55). The tax treatment of share repurchase by a share trust is distinct from share repurchase by a subsidiary owing to the nature and use of share trusts which differ from that of subsidiaries.

Consideration received by a subsidiary, if shares in the holding company are disposed of, would indirectly be for the benefit of the holding company as the owner of the subsidiary. In contrast, any consideration received by a share trust, if shares in the holding company are disposed of, would be for beneficiaries other than the holding company. If no consideration is received, a share trust would be liable for donations tax, constituting a gratuitous waiver, which could be to the disadvantage of beneficiaries. Donations tax could, however, also arise for the holding company if an amount is donated or a low-interest loan is granted to enable an employee share trust to acquire shares (Fouché, 2012). Despite being conceivable that a share trust could acquire shares in a holding company and subsequently distribute these shares to the holding company, adequate consideration would have to be charged by the share trust. The position would differ from the position where a subsidiary could distribute the shares to a holding company without any actual consideration, as the share trust would act in the interest of other beneficiaries and not solely in the interest of the holding company.

Distributions by a share trust under the STC regime as well as under the dividends tax regime would not be a dividend as defined in the Income Tax Act. As share trusts would not classify as companies, as defined in section 1 of the Income Tax Act (Republic of South Africa, 2020), any distribution would not be subjected to STC or dividends tax. If shares are distributed at no consideration the liability for possible donations tax could arise.

3.5.4 Conclusion in respect of tax reform of treasury shares

Literature pertaining to the STC regime indicates that the tax reform of the STC group exemption succeeded in aligning the STC treatment of both methods of unwinding existing treasury share structures which related to subsidiaries. The position under the dividends tax regime was investigated to discover whether both methods of unwinding existing treasury share structures were aligned in respect of subsidiaries and share trusts. The findings based on an overview of tax reform are summarised in Table 3.2.

Table 3.2

Tax treatment of two methods to unwind treasury share structures

Holding company repurchased from subsidiary (or share trust)	Subsidiary (or share trust) distributed treasury shares to the holding company
Secondary tax on companies (STC) regime: Before 1 April 2012	
From subsidiary:	By subsidiary:
Holding company subject to STC to extent that consideration exceeds the nominal value of shares.	Holding company deemed to declare a dividend for a reduction in reserves; however, entitled to STC credit in respect of dividend from a subsidiary.
Subsidiary subject to STC on or after 1 October 2007 if consideration is less than the market value of shares disposed. Investor subjected to capital gains tax with the amount of dividend excluded from proceeds.	Subsidiary subject to STC. Subsidiary also subjected to capital gains tax with proceeds at market value.
From share trust:	By share trust:
Holding company subject to STC to extent that consideration exceeds the nominal value of shares.	Donations tax only to extent that distributed at no consideration. Share trust subjected to capital gains tax with proceeds at market value.
Dividends tax regime: On or after 1 April 2012	
From subsidiary:	By subsidiary:
Specific repurchase would result in a dividend if a reduction in CTC is exceeded. A resident company subsidiary qualifies for exemption from dividends tax in terms of section 64F of the Income Tax Act (Republic of South Africa, 2020). Subsidiary subject to capital gains tax with CTC as proceeds.	Dividend in specie distributed by subsidiary exempt from dividends tax if the holding company is a resident or group of companies. Subsidiary subjected to capital gains tax with proceeds at market value.
From share trust:	By share trust:
Specific repurchase would result in a dividend if a reduction in CTC is exceeded. A share trust holder of treasury shares does not qualify for exemption in terms of section 64F of the Income Tax Act (Republic of South Africa, 2020) - therefore subjected to dividends tax.	Not a dividend as share trust is not a resident company. Donations tax only payable if distributed by share trust at no consideration. Share trust is subjected to capital gains tax on the difference between the actual consideration and the base cost of such shares.

In respect of treasury shares held by a subsidiary, the methods of unwinding treasury share structures were not found to be aligned in all respects under the dividends tax regime. Although both methods could result in dividends tax, the basis on which capital gains tax would be levied would have differed. If the holding company repurchased the shares from a subsidiary, capital gains tax would be levied on

only a portion of the repurchase price. Whereas, if the subsidiary distributed the treasury shares to the holding company as a dividend in specie, capital gains tax would be levied on the full market value of shares distributed. Based on the increase in the effective capital gains tax rate applicable to corporates (Figure 3.2) since the introduction of dividends tax in 2012, the tax preference for a payout method subjected to dividends tax instead of capital gains tax would also increase. The tax preference for unwinding treasury shares which would result in capital gains tax being payable, when a subsidiary declared a dividend in specie to the holding company, is expected to decrease further since the introduction of dividends tax.

The tax preference for both methods of unwinding treasury shares held by a subsidiary is also submitted to have changed, if compared to the STC regime, as a result of the introduction of dividends tax. Under the STC regime both methods would have been subjected to STC owing to the tax reform of not affording the STC group exemption. Under the dividends tax regime both methods would result in a dividends tax exemption being afforded. If a treasury structure is intended to be unwound, such transaction could have been deferred until after the introduction of dividends tax in order to utilise the dividends tax exemption being afforded. In respect of payout policies, the trend in the unwinding of treasury shares is expected to be lower during 2011 (the year preceding the introduction of dividends tax in 2012).

In respect of treasury shares held by a share trust, both methods of unwinding treasury share structures were also not found to be aligned in all respects. If the holding company repurchased the shares from a share trust, a dividend would arise which is considered for dividends tax as the share trust would not qualify for exemption from dividends tax; whereas, if the share trust distributed the treasury shares to the holding company at no consideration, donations tax would be considered. However, a transaction between a holding company and a share trust is, as is argued in this chapter, to occur at adequate consideration as a share trust is created for the benefit of beneficiaries other than the holding company. Consequently, it is not submitted as conceivable that a share trust would distribute treasury shares held at no consideration to a holding company. The unwinding of treasury share structures involving a share trust would accordingly have been subjected to donations tax under both the STC regime and dividends tax regime only in the case of inadequate consideration (Table 3.2). No change in tax preference as a result of the introduction of the dividends tax regime is therefore submitted for further investigation in respect of the unwinding of treasury share structures involving a share trust.

3.6 CONCLUSION

Based on an overview of tax reform, the role of taxes as a consequence of investor-level tax reform is argued to have increased since 2011. The three specific exclusions of the amended definition of dividend enunciate the conflicting tax preferences of investors for different payout methods as a result of taxes assessed at investor level (Figure 3.1). Reforms to the definition of dividend resulted, in particular, in a distinction between general and specific share repurchases for tax purposes since 2011 and a general repurchase no longer being a dividend as previously defined (Table 3.1).

The conflicting tax preferences are brought to the fore by the fact that dividends tax is assessed at investor level and only affords exemption to certain investors. The dividends tax exemption would be beneficial to corporate investors (companies) and corporate investors have been found to have sufficient influence to align the dividend policies of companies in which shares are held with their tax preferences for dividends (Badenhorst, 2017). Foreign investors (who include corporate investors) are also likely to benefit from the introduction of dividends tax because of the possible application of relief in terms of a double tax agreement (Venter, 2014). Fund investors are institutional investors, as defined by the JSE (2016), and would also benefit from the introduction of dividends tax because dividends tax exemption was not afforded under the STC regime and the purpose could have been to provide a further stimulus for retirement savings (Filen, 2011). The dividends tax exemption afforded could have encouraged the use of dividends as a payout method since the introduction of dividends tax. In anticipation of the introduction of dividends tax, during April 2012, dividends could have been postponed or accelerated in order to subject a dividend to dividends tax or not. The expectation is that the timing of dividend declarations during 2012 would differ from immediately preceding and subsequent years (proposition 1). As the introduction of dividends tax is argued as beneficial in particular to corporate, foreign, and fund investors (Badenhorst, 2017; Filen, 2011; Venter, 2014), the dividends tax exemption afforded could further have encouraged the use of dividends as a payout method since the introduction of dividends tax. The expectation is further that dividends post-2012 would be higher than dividends pre-2012 (proposition 2).

Capital distributions represent a return of stated capital (share capital or share premium) to investors. Investors, however, have no legal right to a return of capital invested in a company (Van der Linde 2008, p. 8). Capital distributions are thus submitted as a payout method based on a return of capital invested, which is not guaranteed, and continued participation in future dividends if share capital is not reduced. A capital distribution would not be subject to dividends tax if nominated from CTC (as detailed under section 3.2.1) but would be subject to capital gains tax if held with capital intent by

the investor. Based on consecutive increases in applicable tax rates (Figure 3.2), the preference for a payout method not subject to dividends tax could be expected to decline (Nel, 2018). Share premium distributions by JSE-listed companies were noted as decreasing from 2011 to 2014 and as nominal in relation to dividends distributed from profits over the period 1999 to 2014 (Nyere & Wesson 2019, p. 9). The trend of decreasing capital distributions was expected to continue after 2014 because of increases in the effective rate of capital gains tax and an exemption from dividends tax forfeited by corporate and fund investors. The expectation was that capital distributions post-2012 would be lower than capital distributions pre-2012 (proposition 3).

In respect of the unwinding of treasury shares held by a subsidiary, STC would have been levied prior to the introduction of dividends tax with an exemption from dividends tax afforded to the subsidiary and holding company in respect of dividends received. Specific repurchases from subsidiaries could have been deferred until after the introduction of dividends tax in order to utilise the dividends tax exemption being afforded. The expectation is that the value of share repurchases from a subsidiary would be lower during 2011 pending the introduction of dividends tax if compared to other periods (proposition 4).

The propositions based on tax reform emanating from this chapter, including the research objectives to which each proposition relates, are submitted in Table 3.3.

Table 3.3

Propositions in respect of payout policies based on overview of tax reform

Proposition number	Description	Proposition in respect of payout policies	Research objective
1	Dividends	Timing of dividend declarations during 2012 would differ from immediately preceding and subsequent years.	Second research objective
2	Dividends	Dividends post-2012 would be higher than dividends pre-2012.	Third research objective
3	Capital distributions	Capital distributions post-2012 would be lower than capital distributions pre-2012.	Third research objective
4	Holding company share repurchase from subsidiary	Specific repurchases from subsidiaries during 2011 would be lower, if compared to other periods, pending the introduction of dividends tax.	Third research objective

Proposition 1 would be considered based on the investigation of the timing of dividend declarations in Chapter 6 (pursuant of the second research objective). Proposition 2 to proposition 4 would be considered based on the investigation of the trend and composition of total payout in Chapter 7 (pursuant of the third research objective).

In conclusion, this chapter submits a theoretical argument for the increased role of taxes based on an overview of tax reform. Chapter 5 expands on the argument for the increased role of taxes by means of after-tax values of different payout methods (first research objective of this study). In Chapter 4 which follows the research methodology of the present study is described.

CHAPTER 4: RESEARCH METHODOLOGY

4.1 INTRODUCTION

The present study investigated whether the payout policies of selected JSE-listed companies were adjusted on the basis of investor-level tax reform with the overarching aim to investigate the effect of investor-level tax reform on payout policies. In this regard, four research objectives were submitted for investigation as detailed under section 1.4. The research methodology described in this chapter details the research plan which was followed in order to address each of the four research objectives. The research methodology process has been described as consisting of different layers, being research paradigms, approaches, methodological choice, strategy choice, time horizons, techniques, and procedures (Saunders et al., 2019). This chapter elaborates on the research methodology of the present study for each of these different layers.

The research paradigm refers to the political or ideological orientation of researchers towards the social world being investigated (Saunders et al., 2019, p. 138). The present study was based in the positivistic paradigm on the ontological foundation that the world is viewed objectively – independent from knowledge (epistemology) and apart from the researcher (McKerchar, 2008, p. 7). The research was approached from an objectivist's view as a rigorous scientific research process detached from the values and beliefs of the researcher (Saunders et al., 2019, p. 136). The only instance where a subjective approach was applied in the present study was the employment of purposive non-probability sampling based on the data availability of observations (as detailed under section 4.6.3 and section 4.8.3). The payout policies of companies were the subject of the study and were the observable social phenomenon being studied with the aim of investigating the effect of investor-level taxes on the payout policies of companies. The research approach to theory development could either have been deduction, abduction, or induction (Saunders et al., 2019, p. 136). Deductive reasoning was applied as the study investigated whether an existing theory applied in specific instances (Hyde, 2000). The theory of taxes and tax clienteles served as the existing theory in the study, for which support was considered by means of empirical observations and data analyses.

Research methodological choice refers to a choice between quantitative, qualitative, and mixed methods (Saunders et al., 2019, p. 136). The distinction between qualitative research and quantitative research is often framed in terms of using words (qualitative) rather than numbers (quantitative) (Creswell, 2014). The study followed a quantitative research design as the research was framed in terms of using numbers (quantitative) rather than words (qualitative). It is recognised that the effect

of tax on payout policies could also have been investigated in a qualitative manner by means of surveys of managers or directors (Brav et al., 2008; Firer et al., 2008; Chivaka et al., 2009). However, directors might have been reluctant to give tax efficiency as a reason for a payout method in a survey owing to the misalignment of the interests of the tax authority and the investors or directors of the company (Chivaka et al., 2009). The study opted to investigate the effect of taxes in a quantitative manner without the need to base findings on a survey of managers or directors. The research strategy elected was an archival study, as past accounting and statutory disclosures were analysed.

The research time horizon could be either cross-sectional or longitudinal (Saunders et al., 2019, p. 136). Panel data, often referred to as longitudinal data, provide a cross-sectional dimension and a time-series dimension (Hsiao (2007) in Smith (2020, p. 129)). The present study is longitudinal in nature as the payout policies of companies were investigated over a period of tax reform.

Research techniques and procedures refer to the data collection and data analysis which represents the centre of the research methodology process (Saunders et al., 2019, p. 136). Based on the four objectives of the study, both secondary and tertiary data were analysed. Tertiary data consisted of calculated nominal after-tax values of payout methods (first research objective); calculated days-to-declaration (second research objective); and calculated investor tax preference parameters (fourth research objective). Dividend declaration dates, payout methods, and applicable financial ratios constituted secondary numerical data that were analysed. The term triangulation refers to the practice of using multiple sources of data or multiple approaches to analysing data to enhance the credibility of a research study (Hastings, 2010). Methodological triangulation, which is the most commonly used form of triangulation, engages multiple methods to study a single problem (Hastings, 2010). This study employed within-methods triangulation by means of independent research methods for each of the four research objectives in order to triangulate empirical evidence on the effect of investor-level taxes on payout policies.

The population, target period, method, data collection, and data analysis of the present study are elaborated on in the sections which follow. The method, data collection, and data analysis are presented for each of the four research objectives of the study. Validity and reliability considerations related to the study are also elaborated on in this chapter. The chapter concludes with the limitations and ethical considerations of the study.

4.2 POPULATION OF STUDY

The population comprised JSE-listed companies selected on the basis of the following criteria:

- Companies with ordinary and/or N-class shares listed on the JSE
- Companies with a primary listing on the JSE main board and not in the resources and financial sectors
- Companies listed for the full duration from 2009 to 2015

Companies with listed ordinary and/or N-class shares were included. N-class shares are the same as ordinary shares, except for granting an investor minimal or no voting rights (JSE, 2019b). Ordinary shares and N-class shares are therefore not limited in their distribution rights and were included in the study, which investigated payout policies. Three companies included in the population of the study (African & Overseas Enterprises Limited, E Media Holdings Limited, and Rex Trueform Group Limited) had both ordinary shares and N-ordinary shares in issue during the period 2010 to 2019. As the shareholding related to each type of share could differ, data collection in respect of investor tax preference parameters were calculated for each of these three companies for ordinary and N-ordinary shares. Other classes of shares (e.g. A-ordinary shares and preference shares) which are limited in their distribution rights were excluded from the study as the payout methods in respect of these shares could be limited because of statutory rights attached to them.

JSE-listed companies could also be listed on another stock exchange and as a result be dual listed. Dual-listed companies were included in the study only if the primary listing of the company was on the JSE. If the annual financial statements of a dual-listed company were presented in a foreign currency, the financial information would be translated to South African rand, applying the average exchange rate for the applicable financial year obtained from SARS (2020b). Companies with primary listing not on the JSE were excluded on the basis that the payout policies of such companies could be subject to stock exchange regulation and tax regulation in a jurisdiction other than South Africa. The investigation of the tax effect on the payout policies in South Africa of companies with primary listing not on the JSE is thus not submitted as practical owing to the detailed consideration of regulation in other jurisdictions required.

Only companies that were listed from 2009 to 2015 were included, in order to provide data on companies listed at least three years before and after the introduction of dividends tax during 2012. Consequently, companies that delisted before 2009 were excluded, whereas companies that had delisted after 2015 were included in the intended population of the study in an attempt to eliminate survivorship bias (De Vries et al., 2012; Mans-Kemp & Viviers, 2015).

JSE-listed companies can be classified into three sectors: resources, financial and industrial (Nyere & Wesson, 2019). The resources sector comprises oil and gas producers and mining companies. The financial sector comprises companies operating in the financial industry. The industrial sector comprises companies in the remaining sub-sectors of industrial, consumer goods, healthcare, consumer services, telecommunications, utilities, and technology industries. Companies listed in the resources and financial sectors were excluded owing to unique accounting policies regarding capital investments and financing (Graham, 1999; Wesson et al., 2018). Companies in the resources sector also generally follow commodity prices rather than company-specific factors, whereas the financial sector companies are highly regulated and have capital structures with high, but acceptable, debt levels (Bester, 2008). As a result of sector-specific differences, the factors influencing the dividend payout of industrial sector companies were likely to be different from those of the resources and financial sectors (Nyere & Wesson, 2019).

In total, 116 companies met the criteria of the population of the present study consisting of 33 large companies, 43 medium companies, and 40 small companies based on market capitalisation (Appendix A). The initial population comprised companies listed according to Profile's Stock Exchange Handbook for October 2009 to January 2010 based on the sector description (Profile Media, 2010). The initial list was then reconciled with Profile's Stock Exchange Handbook for 2015 (Profile Media, 2015) based on the sector description with due consideration of name changes from 2009 to 2015.

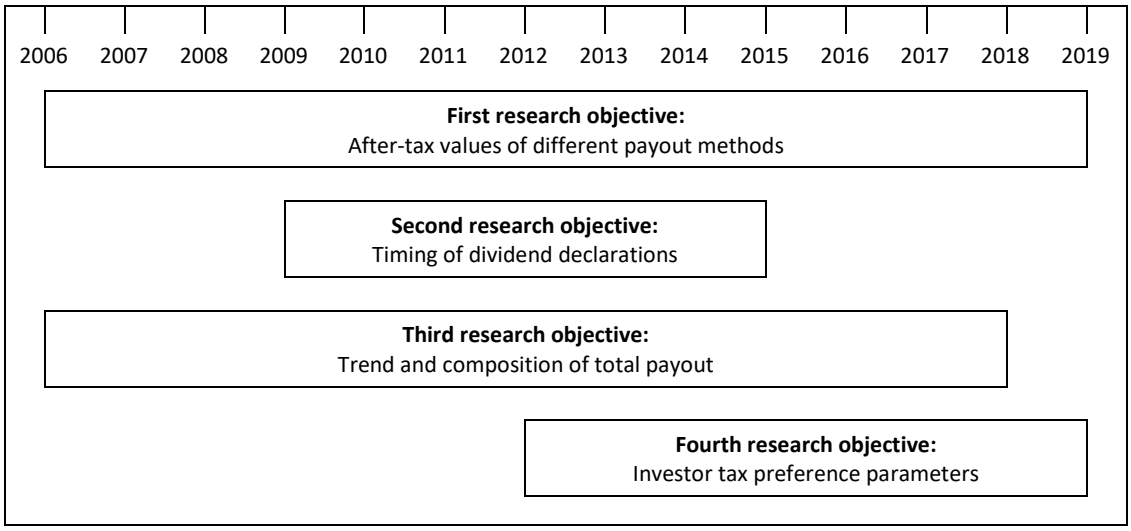
Purposive non-probability sampling was applied for sample selection in respect of different research objectives which entailed the researcher deciding on the units for inclusion based on the contribution to the research (Quinlan et al., 2019, p. 185). Samples of the population were selected for the second research objective, the third research objective, and the fourth research objective, as detailed in the method section of each research objective which follows in this chapter.

4.3 TARGET PERIOD OF STUDY

The target period of the study was the financial years of companies from 2006 to 2019. The four objectives of the study focused on specific financial years based on the aim of each objective. The different sub-periods of each research objective are illustrated in Figure 4.1.

Figure 4.1

Target periods of research objectives



After-tax values (first research objective) were calculated based on tax legislation in respect of years of assessment of investors which could relate to the 2006 to 2019 financial years of companies. The second research objective focused on the timing of dividend declarations before and after the introduction of dividends tax on 1 April 2012 by considering the financial years from 2009 to 2015. The consideration of the period 2009 to 2015 in respect of dividend declarations was necessary as companies included in the population had to be listed during this period and dividend history for this period would provide data on the three years before and after the introduction of dividends tax in 2012. Extending the period to include companies that were continuously listed and with a dividend history from 2006 to 2018 would have resulted in the exclusion of most companies, therefore affecting the statistical analyses owing to data limitations. The third research objective focused on the trend and composition of total payout over the period 2006 to 2018 in order to provide evidence on the six years before and after the introduction of dividends tax. The fourth research objective focused on the relationship between changes in payout methods and changes in calculated tax preference parameters since the introduction of dividends tax in 2012 by considering the 2012 to 2019 financial years of companies.

4.4 PILOT STUDY IN RESPECT OF DATA COLLECTION AND RESEARCH METHODS

A preliminary or pilot study is one of the primary ways of ensuring the reliability of research methods (Hofstee, 2006, p. 53). Accordingly, this study included a pilot study of 30 randomly selected companies prior to final data collection and data analysis. The pilot study of 30 companies related to the second, third and fourth research objectives for the target periods as illustrated in Figure 4.1. The intention of the pilot study for each research objective was three-fold, namely:

- to assess data availability in terms of proposed methods;
- to refine the calculations applied in data collection; and
- to ensure consistency with data collection methods of previous studies in order to expand on existing databases where applicable.

The pilot study which related to the third research objective provided a means to attempt achieving consistency of data collected in the study and the existing share repurchases database covering the period 1999–2017 (Steenkamp & Wesson, 2020) and dividend database covering the period 1999–2014 (Nyere & Wesson, 2019). The pilot study commenced with share repurchases data collection from 2018 and dividends data collection from 2015. The data included in the existing share repurchases databases for 2017 (Steenkamp & Wesson, 2020) and the existing dividends databases for 2014 (Nyere & Wesson, 2019) were, however, also reconciled with annual financial statements in order to ensure consistency of data collection in this study. The findings of the pilot study also informed refinements of keywords applied in searches based on synonyms applied for different payout methods in annual financial statements. For the companies in the pilot study, the method proposed for the collection of additional shares payout data was also assessed.

The pilot study which related to the fourth research objective enabled challenges to be identified relating to the data collection and intended classification of shareholders in different categories. The findings of the pilot study accordingly informed refinements of data collection. For the companies in the pilot study, the investor tax preference parameters were also calculated in order to refine the formulas for the calculation. The pilot study in respect of the fourth research objective also included consideration of the suitability of data collection from different databases. The research methods relating to each of the four research objectives of the study are provided in the sections which follow.

4.5 FIRST RESEARCH OBJECTIVE: AFTER-TAX VALUES OF PAYOUT METHODS

The first research objective of this study was to calculate the after-tax values of different payout methods for different categories of investors. The calculation of after-tax values affords the opportunity to isolate the tax impact over a period during which the tax reform occurred and enables identifying tax-driven preferences for different payout methods (Geiler & Renneboog, 2015; Pattenden & Twite, 2008). Propositions based on tax-driven preferences for different payout methods serve as basis of subsequent empirical investigation (Geiler & Renneboog, 2015). The first research objective concludes with propositions in respect of payout policies for investigation in other research objectives. The research method described in this section was applied in Chapter 5.

4.5.1 Research method to calculate after-tax values of payout methods

In respect of the first research objective, a descriptive scenario-based method was adopted. The scenarios methodology complements the established – typically positivist – research approaches (Ramirez et al., 2015, p. 82) and is accordingly considered as suitable for the present study. The scenarios contemplated in the present study are the after-tax values of different payout methods for different investors.

The nominal after-tax values of dividends, share repurchases, and additional shares for investors were calculated. Based on an overview of tax reform in South Africa (Chapter 3), the after-tax values of payout methods were expressed in a calculation for individuals, corporates, and institutions. In the calculation of after-tax values, funds would represent institutional investors as the main institutional investor based on holdings in JSE-listed equities (Thomas, 2017). This approach is based on Geiler and Renneboog (2015) from which the present study benefited in the structuring. In the calculation of after-tax values, in line with Geiler and Renneboog (2015), nominal tax rates were applied. A composite tax rate has, however, also been considered in previous studies. The composite tax rate is equal to the nominal dividend tax rate minus the tax gain from leverage and is submitted as the best explanation for dividend policy of companies that use debt or internal-equity financing at the margin in declaring dividends (Kemsley et al., 2018, p. 753). The present study did not consider composite tax rates but submits composite tax rates as a recommendation for further research.

In order to quantify the magnitude of changes in after-tax values over the different periods, a tax differential was calculated in the present study for each period to argue the increased role of taxes owing to the changes in tax differentials over time.

The tax differential depicts, in percentages, the difference between the option with the highest after-tax value and the option with the lowest after-tax value calculated in this study as follows:

$$Tax\ differential = \frac{Highest\ after\text{-}tax\ option - Lowest\ after\text{-}tax\ option}{Lowest\ after\text{-}tax\ option}\ X\ 100 \quad \text{....(Equation 4.1)}$$

The calculated tax differentials indicate the tax preference of one payout method over another and enable a graphical representation of changes over a period as basis to argue the increased or decreased role of taxes over a period.

4.5.2 Data collection of after-tax values of payout methods

The data collection in respect of after-tax values commenced with the data collection of tax rates. The tax rates collected were then applied in the calculation of after-tax values for different investors and different payout methods.

4.5.2.1 Tax rates data

The data collection involved tax rates obtained from tax pocket guides published by the SARS that is the revenue service of the South African government entrusted with the duty to collect revenue and ensure compliance with tax law (SARS, n.d.). The tax rates for each of the tax years of assessment relevant to the 2006 to 2019 financial years of declaring companies were obtained from the respective tax pocket guides for each year of assessment.

4.5.2.2 Calculation of after-tax values

The calculation of after-tax values departs from a scenario of a company with only one investor considering a distribution of R100. The distribution could then be as cash dividends (subjected to dividends tax) or a substitute for cash dividend (subjected to capital gains tax) and the after-tax values for a period reflecting the R100 less tax deducted in respect of the distribution. The present study considered share repurchases and the issue of additional shares as substitutes for cash dividends. The after-tax values of payout methods were expressed in a formula in Microsoft Excel based on which tax differentials were also calculated.

The detailed specification of the calculation of after-tax values is provided in Chapter 5. The after-tax values were calculated for four different categories of investors: higher-rate individuals, lower-rate individuals, corporates, and institutions (represented by funds).

As the years of assessment would differ between investors, the following assumptions were necessary in order to calculate after-tax values and enable comparison between different investors:

i. That a corporate and fund investor's year of assessment ends at the end of February each year. The tax rates for corporates (companies) are applicable in respect of a financial year ending between April and March each year (tax year of assessment). The calculation of after-tax values is based on tax rates applicable in respect of the year of assessment of corporates, and the year of assessment is determined based on the financial years of corporates. Accordingly, the year of assessment for each company would differ based on their respective financial years. Consequently, it was considered impractical to distinguish between companies with different years of assessment. The year of assessment for all categories of taxpayers was thus regarded as the same for meaningful comparison between the categories.

ii. That individual investors are only subject to normal tax at two levels (the maximum and minimum marginal tax rates) and annual exclusions from capital gains tax are ignored in the calculation of normal tax. Individuals are subject to progressive normal tax rates on taxable income and are also afforded rebates from normal tax in terms of the Income Tax Act. Assumptions regarding the normal tax rates were necessary as a result of the actual tax rates of individuals not being known in most studies, with Holmen et al. (2008) serving as an example where actual tax rates were obtained. The present study assumed, in line with Geiler and Renneboog (2015), that there are two categories of individual taxpayers: one taxed at the maximum marginal rate and the other taxed at the lowest marginal rate. Individuals would qualify for an annual exclusion in the assessment of their capital gains tax, which is adjusted annually based on the South African Budget Speech. In respect of the year of assessment ending on 29 February 2020, this annual exclusion amounted to R40 000 of the capital gain or capital loss in case of a living individual and R300 000 in case of a deceased person (SARS, 2020a, p. 74). These exclusions were ignored in calculations for a meaningful comparison between the different categories, as the exclusion only applies in respect of individual investors.

iii. That all investors were South African tax residents. The inclusion of non-resident investors would necessitate consideration of the double tax agreements that apply between different countries and which is not included within the scope of this study.

iv. That under the STC regime, the return of capital was not treated as including any tainted portion (previously capitalised profits) but rather as untainted capital. In respect of a share repurchase, no portion of a return of capital is as a result deemed to be a dividend for STC purposes.

This assumption is necessary to focus on the profits actually distributed which would constitute a dividend for comparison between the STC regime and the dividends tax regime.

v. That additional shares obtained are held by investors with a capital intent and accordingly subjected to capital gains tax on disposal (as discussed in detail in section 3.2).

vi. That additional shares obtained are issued by the declaring company in the primary market and not the transfer of a security subject to security transfer tax.

vii. That additional shares obtained as a payout method are disposed of by the investor in the year acquired to realise the after-tax value of such a receipt. Pattenden and Twite (2008, p. 3) in their calculation also assumed that capital gains are realised in the year additional shares are acquired in order to reflect the capital gains tax consequences during a period.

4.5.2.3 Data analysis of after-tax values

Calculated after-tax values were analysed by interpreting increases or decreases in tax differentials. A graphical representation of tax differentials was also analysed to investigate changes in tax differentials over a period of tax reform in order to argue the magnitude of tax reform.

4.6 SECOND RESEARCH OBJECTIVE: TIMING OF DIVIDEND DECLARATIONS

The second research objective of this study was to investigate the timing of dividend declarations before and after the introduction of dividends tax. The purpose of this objective was to investigate whether dividend declarations were accelerated or postponed during the 2012 financial year of companies (when dividends tax was introduced on 1 April 2012). The research method described in this section was applied in Chapter 6.

4.6.1 Research method to investigate the timing of dividend declarations

The method employed in respect of the second research objective followed an empirical research design in which secondary numerical financial data was analysed in order to describe the timing of dividend declarations before and after the introduction of dividends tax. Empirical evidence was compiled by performing two independent investigations:

i. Firstly, an investigation in aggregate for all selected companies of the trend in days-to-declaration of final and interim dividends. The aim was to investigate whether the days-to-declaration of dividends during the 2012 financial year of companies differed from the three prior financial years (2009 to 2011) and the three subsequent financial years (2013 to 2015). Delays in financial reporting and audit report lag as explanations for changes in the timing of dividend declarations were also considered.

ii. Secondly, an investigation at individual company level by addressing three sub-questions: (i) whether the timing of final and interim dividend declarations before or after 1 April 2012 differed from the timing in the immediately preceding and subsequent year; (ii) whether the frequency of special dividend declarations during the 2012 financial year of companies differed from the frequency in surrounding years; and (iii) whether the occurrence of non-declaration of dividends during the 2012 financial year of companies differed from the occurrence in surrounding years. The investigation at company level aimed to investigate tax as a possible explanation for the timing of dividends with reference to 1 April 2012 as well as to provide insights into special dividends and the non-declaration of dividends as means of postponement or acceleration of dividends.

It is recognised that other variables could also impact the postponement or acceleration of dividends (for example, macroeconomic conditions such as a recession could warrant a postponement of dividends based on lower distributable income) which were not included in the present study. The present study aimed to provide descriptive evidence which could highlight the opportunity for further explanatory research that could consider variables not included in the present study.

The method employed for the investigations resulted in the actual timing of dividend declarations being investigated under the second research objective. The size of distributions could conceivably also be adjusted to postpone or accelerate a payout method pending the introduction of dividends tax which would be considered as part of the third research objective.

4.6.2 Data collection in respect of the timing of dividend declarations

The South African regulatory framework in respect of dividend declarations is described in detail in section 2.8.4. The data collection commenced with the collection of dividend declaration dates and year-ends employed in calculating days-to-declarations. Results announcement dates and corporate profitability were then collected to investigate explanations, other than tax, for the timing of dividend declarations.

4.6.2.1 Dividend declaration dates and year-ends

The full dividend history reports of companies were obtained from the IRESS database (product called Dividend history – Full dividend history report) which included the declaration dates of final, interim and special dividends. The IRESS database is a South African financial database widely used in financial analysis and academic research in the country. The financial year-end of each company was also obtained from IRESS (product called Financial statements – Year end month), on which basis the beginning of each financial year was captured.

In respect of the data collected, second interim dividends were noted on full dividend history reports for two company-year observations (Datacentrix Holdings Limited for 2012 and Hudaco Industries Limited for 2014). The second interim dividends noted were reclassified as special dividends for the purpose of the present study as the amounts of these second interim dividends differed from the first interim dividends.

4.6.2.2 Calculation of days-to-declaration

The unit of analysis employed was the days-to-declaration of final and interim dividends. The days-to-declaration were calculated as the number of days from the beginning of the respective financial year until the dividend declaration date. The days-to-declaration in respect of each year were calculated in Microsoft Excel as: Declared date per dividend history report less beginning of each financial year. With due regard for the fact that 2012 was a leap year, the days-to-declaration calculated in respect of the 2012 financial year of companies was reduced by one day in order for comparison of different years by means of descriptive statistics.

4.6.2.3 Results announcement dates

In order to investigate delays in financial reporting, the results announcement dates of annual financial statements were required. The announcement dates were obtained from IRESS (product called Library – Company information – Quick view) from which dates were captured (Type: Annual report – Date).

4.6.2.4 Corporate profitability and cash flows from operating activities

Two line items from the annual financial statements of companies were inspected: (i) the profit before tax according to the statement of comprehensive income; and (ii) cash flows from operating activities according to the cash flow statement. A binary indicator was then included for each line item with '1' indicating a profit and positive cash flows and '0' indicating where a company did not realise a profit or did not demonstrate positive cash flows.

4.6.3 Sample selection in respect of the timing of dividend declarations

Companies with incomplete dividend history reports around 2012 (being no dividend in each of the years from 2011 to 2013) were excluded for the purpose of data analysis as an incomplete dividend history would not enable the comparison between different years. A company was also excluded if a change in year-end resulted in a financial year shorter than 12 months as such a change in year-end would result in a calculated days-to-declaration which was also not comparable between different years. Details of companies included in respect of dividend declarations are contained in Appendix A.

4.6.4 Data analysis of the timing of dividend declarations

Data analysis was performed by means of descriptive statistics in respect of the two independent investigations performed. The trend in days-to-declaration in aggregate for companies selected was analysed by means of descriptive statistics. The mean days-to-declaration for 2012 financial years was accordingly compared with the mean days-to-declaration of preceding and subsequent financial years. Descriptive statistics, including the trend in least square means, were generated using TIBCO Statistica 13.5. Delays in financial reporting as an explanation for changes in the timing of dividend declarations was also investigated by means of a graphical analysis of dates. The investigation at individual company level was analysed based on descriptive statistics of the results of the three sub-questions (as detailed under section 4.6.1).

4.7 THIRD RESEARCH OBJECTIVE: TREND AND COMPOSITION OF TOTAL PAYOUT

The third research objective of this study was to investigate the trend and composition of total payout before and after the introduction of dividends tax. The aim of this objective was to draw a conclusion on whether the trend and composition of total payout post-2012 (2013 to 2018) differed from pre-2012 (2006 to 2011) in rand value and frequency of electing payout methods. The research method described in this section was applied in Chapter 7.

4.7.1 Research method to investigate the trend and composition of total payout

The method employed in respect of the third research objective followed an empirical research design in which secondary numerical financial data was analysed in order to describe the trend and composition of total payout. The trend and composition of payout included the value of payout and the frequency of electing payout methods. The inclusion of the frequency of the use of specific payout channels was employed to describe the trend of payout channels over a period, in line with the methodology followed by Lie and Lie (1999, p. 540) and Geiler and Renneboog (2015, p. 180). Tax as an explanation of changes in the trend and composition of payout was argued based on support for propositions resulting from an overview of tax reform (Chapter 3) and after-tax values (Chapter 5).

Two confounding factors in payout behaviour (profitability and company size) were also considered. Return on assets (ROA) was employed as a proxy for profitability (Badenhorst, 2017; Nyere & Wesson 2019) and considered as an explanation for differences in payout methods during the post-2012 and pre-2012 period. Company size as a determinant in payout behaviour is recognised (Munzhelele, 2019; Wesson et al., 2015) and controlled for by including companies from all three size categories in the population of this study (33 large companies, 43 medium companies, and 40 small companies as

detailed under section 4.2) as the aim of the study was to describe the payout of companies of all size categories and not to focus solely on companies from only one size category.

4.7.2 Data collection of total payout

Total payout data collected comprised dividends, capital distributions, additional shares, and share repurchases. Total payout data were primarily compiled by the expansion and consolidation of an existing dividend database (Nyere & Wesson, 2019) and share repurchase database (Steenkamp & Wesson, 2020). Following the data collection method described in the previous studies, data were collected from disclosed annual financial statements and announcements via Stock Exchange News Service (SENS). Annual financial statements and SENS announcements of companies were downloaded electronically using IRESS (with products called Library and News). The financial ratios of companies (ROA and retention rates) were obtained from the IRESS database (product called Financial ratios).

Consolidated figures in respect of dividends, share repurchases, and share issues are available on commercial databases (for example IRESS, Bloomberg, and Refinitiv Eikon (previously Thomson Reuters Eikon) databases). Unconsolidated figures could, however, not be extracted from these databases. Consolidated figures could include the payout data of subsidiaries to minority investors, which are not related to the shareholding in the holding company. The separate annual financial statements of the holding company was therefore considered as first option in data collection. The annual financial statements of companies must be in consolidated form if the listed company has subsidiaries unless the JSE agrees otherwise (JSE, 2017, Listings Requirements, paragraph 8.62). Furthermore, the listed company's own annual financial statements must also be published if they contain significant additional information (JSE, 2017, Listings Requirements, paragraph 8.62(d)). A listed company is therefore only obligated to present separate annual financial statements if it contains significant additional information. The separate annual financial statements might not be presented by a company for each of the years in the target period of the present study. In cases where the separate annual financial statements are not provided by a company, the consolidated annual financial statements will be used to collect data with a focus on the figures not including any payout to minority investors (the column referring to equity attributable to owners of the parent). In instances where the annual financial statements of a company were presented in a foreign currency, which is other than in South African rand, the foreign currency payout data was converted to rand applying the average exchange rate, obtained from SARS (2020b), at the end of the respective financial period.

The data collection of the different payout methods of ordinary dividends, special dividends, capital distributions, additional shares, and share repurchases are described in the sections which follow.

4.7.2.1 Ordinary dividends

The dividends data collection method followed that of Nyere and Wesson (2019) and commenced with a collection from the statement of changes in equity (SCE). A distribution for accounting purposes could be disclosed in the SCE in the line item dividend or distribution and the funding of such a distribution could be disclosed in the retained earnings or stated capital (share capital or share premium) columns in the SCE. The data collected for a distribution were consequently divided into a dividend portion if funded from retained earnings and a capital distribution portion if funded from stated capital. The capital distribution portion would then be considered separately as such a portion could constitute a reduction of CTC, which is not subjected to dividends tax.

The dividends paid amount according to the cash flow statement was then collected and compared to the amount according to the SCE. Differences recognised between the SCE amount and the cash flow statement amount were investigated further – with a liability (investors for dividends) or possible non-cash dividends, such as dividends in specie, which could serve as an explanation for differences between the SCE and the cash flow statement entries. This study did not attempt to reconcile the cash flow statement entries entirely to the SCE entry but rather to employ the comparison between the SCE and the cash flow statement as a reasonability test of data collected from the SCE.

The dividend database of Nyere and Wesson (2019) contained dividends as disclosed in the SCE in annual financial statements. Final dividends proposed should not be reflected in the annual financial statements if not declared at the year-end (IASB, 2018b, IAS 10, paragraph 12 and paragraph 13). Consequently, the dividends recognised in the SCE during the current year would not include the final dividends for the current year if such dividends were declared after year-end, however, would then include the final dividends of the prior year. The actual dividend relating specifically to each year could differ from the dividend recognised in the SCE. As the aim of the third research objective was to investigate the trend and composition of total payout over a period, the actual dividends relating to each period were thus required which resulted in an adjustment to the amounts according to the SCE. In conclusion, the dividend database of Nyere and Wesson (2019) was expanded by the present study in the following respects: (i) capturing the data of selected companies for the 2015 to 2018 financial years; and (ii) including an adjustment to account for the actual final dividend each year.

4.7.2.2 Special dividends

Special dividends were collected applying the same data collection technique as ordinary dividends. Special dividends as a result of unbundling transactions could also qualify for specific tax relief in terms of section 46 of the Income Tax Act (Republic of South Africa, 2020), resulting in no dividends tax being payable. Special dividends as a result of unbundling transactions are thus excluded in the present study as specific tax relief could apply. The reason for a special dividend was identified on the basis of scrutinising the annual financial statements and SENS announcements in order to exclude special dividends relating to commercial transactions (e.g. unbundling of businesses or investments). Based on this premise, 14 special dividends were excluded to the value of R113.6 billion for the period 2006 to 2018 (Appendix D). The largest special dividend excluded amounted to R93.30 billion in respect of the Bidvest Group Limited for the 2016 financial year, during which investors approved the unbundling and separate listing (unbundling) of the group's food services businesses, Bid Corporation Limited, via a distribution in specie (Bidvest Group Limited, 2016, pp. 92, 137). The second largest special dividend excluded amounted to R11.25 billion in respect of Telkom Limited for the 2009 financial year, during which shares held in Vodacom Limited were unbundled directly to investors (Telkom Limited, 2009, p. 8). The third largest special dividend excluded amounted to R1.622 billion in respect of Remgro Limited for the 2012 financial year, during which shares held in Implats Limited were distributed to investors (Remgro Limited, 2012, p. 1).

4.7.2.3 Capital distributions

A capital distribution to an investor would not be regarded as a dividend as defined for tax purposes if determined as a reduction in contributed tax capital (CTC). If a capital distribution is not a dividend as defined, no dividends tax consequences would arise but rather normal tax consequences (discussed in detail in section 3.2.1). Capital distributions data were collected based on the data collection method of Nyere and Wesson (2019), as described for ordinary dividends (section 4.7.2.1).

A reduction in stated capital in the SCE, disclosed annual financial statements, was considered as a starting point. Listed companies are obligated to indicate in an announcement of a cash disbursement to investors whether the issue amount is distributed by way of a reduction of CTC or a dividend, both as defined in the Income Tax Act, from 1 April 2012 (JSE, 2017, Listings Requirements, paragraph 11.17). For each reduction in stated capital in the SCE of companies the SENS announcements of companies were scrutinised to discover if an amount was indicated as distributed by way of a reduction of CTC. IRESS (product called News) was used to search Listed Company News and Market News announcements from 1 January 2010 to 1 July 2020 for the keywords 'CTC', 'tax capital', 'return

of capital', and 'capital distribution'. If announced as a reduction in CTC, the reduction according to the SCE was accepted as the reduction in CTC. A reconciliation of the amount according to the SENS announcement and the reduction according to the SCE was not performed. A binary variable was then applied to indicate companies that announced a reduction in CTC during a year as '1' and companies that did not announce a reduction in CTC during a year as '0'.

4.7.2.4 Additional shares

The database of Nyere and Wesson (2019) included only cash dividends, resulting in a reduction in retained earnings in the SCE of companies and not the details of additional shares issued. Data collected in the present study also included capturing additional shares issued by companies that resulted in an increase in the stated capital in the SCE and a reduction in retained earnings in the SCE. A reduction in retained earnings in the SCE of companies was classified as additional shares if described as scrip dividends, capitalisation shares, capitalisation issues, or bonus issues in the annual financial statements or SENS announcements of companies. For the issue of additional shares, an increase in stated capital would also occur; however, if issued at no consideration, no cash flow statement entry would be expected. The portion of additional shares funded from stated capital (share capital and share premium) would therefore not be regarded as a payout method as the investor's own equity capital was reclassified and no earnings were distributed.

In order to ensure the completeness of additional shares data collected from the SCE of companies, SENS announcements were also consulted as the JSE Listings Requirements prescribe mandated announcements in respect of scrip dividends and capitalisation shares. Specific information such as the reason for the capitalisation issue or scrip dividend and, if applicable, whether the investor may elect to receive cash in substitution for the whole or part of his capitalisation issue or scrip dividend entitlement and vice versa must be provided by listed companies (JSE, 2017, Listings Requirements, paragraph 7.C.15). In particular, a scrip dividend should be emphasised by a statement in bold and upper case type on the front page of an announcement, drawing investors' attention to the type of election to be made – whether investors will receive either cash or scrip if they fail to make the election (JSE, 2017, Listings Requirements, paragraph 7.C.15(f)). In the case of a capitalisation issue, which does not contain a cash alternative, an announcement must also be published, indicating whether the issue is distributed from capital or income reserves (JSE, 2017, Listings Requirements, paragraph 11.17(c)). Additional shares issued as scrip dividends or capitalisation shares have to be announced by JSE-listed companies. IRESS (product called News) was used to search Listed Company News and Market News announcements from 1 January 2006 to 1 July 2020 for keywords 'bonus award', 'bonus issue',

'capitalisation award', 'capitalisation issue', 'capitalisation share', 'scrip dividend', 'script dividend', 'scrip issue', 'script issue', and 'script distribution'.

4.7.2.5 Share repurchases

The data collection method as described by Wesson et al. (2015) was followed to collect data on share repurchases. Accordingly, data collection entailed scrutinising the components of annual financial statements (mainly the directors' report, statement of financial position, SCE, share capital note and shareholders' analysis) and capturing details of the SENS announcements on share repurchases to compile a reliable and comprehensive share repurchase database (Wesson et al., 2015). Steenkamp and Wesson (2020) expanded on the initial comprehensive share repurchase database by Wesson et al. (2015) by extending data collection to the 2017 financial years of companies. The present study included a further expansion of the existing share repurchase database by collecting share repurchase data for the 2018 and 2019 financial years of selected companies.

A share reconciliation in respect of the movement in the number of shares during a financial year was accordingly performed in order to assess completeness and accuracy of data collected and to aid in the classification of share repurchases as general or specific repurchases. SENS announcements also provided information separate from annual financial statements in order to assess the completeness of share repurchase data collected. IRESS (product called News) was used to search Listed Company News and Market News announcements from 1 January 2006 to 1 July 2020 for the keywords 'buyback share', 'buy-back share', 'general repurchase', 'repurchase share', 'share buyback', 'share buy-back', 'share repurchase', and 'specific repurchase'.

In respect of share repurchase data collection from the SCE, an entry in different columns of the SCE could occur. Consideration paid for a share repurchase should be debited directly to equity with no gain or loss to be recognised in profit or loss (IASB, 2018a, IAS 32, paragraph 37). For shares with a par value, the par value would be debited against share capital in the SCE and any excess against retained earnings. For shares with no par value, it is recommended that share capital should be reduced with the average price of the shares and, if the buy-back price exceeds the average price, such excess would be adjusted against retained earnings (Snowden-Service, 2018, p. 1130). The SCE of a company could contain an entry in both stated capital and retained earnings in respect of share repurchases, which will be added together during data collection. The distinction between stated capital and retained earnings is not submitted as decisive in respect of classifying a share repurchase as a payout method as a capital distribution from stated capital is submitted as payout method and the distribution from retained earnings is regarded as akin to dividends.

For tax purposes a distinction between the different types of share repurchases would also be relevant (Figure 3.1). In particular, the classification as general repurchase is important as these repurchases have specifically been excluded as a dividend since 2011 and would not result in dividends tax consequences after that date. A share repurchase was classified as a general share repurchase if the notes to annual financial statements, director's report, or SENS announcements indicated that shares were repurchased on the open market or in consequence of the general authority provided by investors to repurchase shares (not from specific investors only).

If no further details regarding the repurchase are disclosed in either the annual financial statements or SENS announcements, general repurchase is accepted as a default classification. A share repurchase was classified as a specific share repurchase if the notes to annual financial statements, director's report, or SENS announcements indicated that shares were repurchased from specific investors or under specific authority granted by investors. The specific repurchase of a holding company from a subsidiary was also included as part of data collection to enable investigation in respect of proposition 4 relating to payout policies due to specific tax reform (Table 3.3). The specific repurchase of a holding company from a subsidiary was identified by the share reconciliation of the movement in the number of shares based on which repurchases by and from subsidiaries were documented.

4.7.2.6 Frequency of electing payout methods

The frequency of electing payout methods was captured by counting the number of company-year observations or occurrences in which a payout method was elected. For each company-year observation in which a payout method was elected, a binary value of '1' was awarded for the payout method. For a specific year the total values awarded would represent the frequency of electing a payout method during such a year.

4.7.2.7 Summarised data collection of total payout

Summarised data collection of payout methods is provided in abbreviated form in Table 4.1.

Table 4.1

Summarised data collection of payout methods

Payout method	SCE line item	Description	Existing databases and contribution of the present study
Ordinary dividends	Reduction in retained earnings.	Distribution from retained earnings (not a capital distribution or a special dividend).	The dividend database of Nyere & Wesson (2019) covering financial years 1999 to 2014 was utilised in the present study. The present study expanded on the existing dividend database by: i. capturing the data of selected companies for the 2015 to 2019 financial years; ii. including an adjustment to account for the actual final dividend during each year; and iii. including the value of capitalisation issues, scrip dividends, and DRIP dividends funded from retained earnings.
Special dividends	Reduction in retained earnings.	The portion of dividend indicated as a special dividend in annual financial statements.	
Capital distributions	Reduction in share capital, share premium, or stated capital.	The portion of dividend reflected as a reduction in share capital, share premium, or stated capital collected from SCE which is not the result of a share repurchase.	
Additional shares	Reduction in retained earnings and increase in stated capital.	Additional shares were issued at no consideration.	
Share repurchases	Reduction in retained earnings, share capital, share premium, or stated capital.	General repurchases, specific repurchases from subsidiaries, and specific repurchases not from subsidiaries. General repurchase was accepted as default classification if no further details were disclosed in respect of share repurchase.	The share repurchase database of Steenkamp and Wesson (2020) covering the financial years 1999 to 2017 was utilised in the present study. The present study expanded the existing share repurchase database by capturing the data of selected companies for the 2018 and 2019 financial years.
Total payout	Ordinary dividends + special dividends + capital distributions + additional shares + share repurchases		

In order to add to the rigour in respect of data collected, the cash flow entry according to the cash flow statement is also documented in respect of dividends and share repurchases in order to corroborate the corresponding data collected in terms of the SCE. Differences between the cash flow statement entry and the SCE entry could exist, inter alia, as a result of dividends being left unpaid (accounted for as liability); prior years' dividends being settled during the current year; and transactions with subsidiaries being accounted for on intergroup loan accounts or transaction costs relating to the transaction not accounted for directly in the SCE but indirectly through the statement of comprehensive income.

The objective is not to match the cash flow entry entirely to the SCE entry, but rather to serve as a reasonability test of data collected from the SCE. Data collected from annual financial statements were also corroborated by considering the applicable SENS announcements in order to assess the completeness of data collected from annual financial statements. In respect of share repurchases, a reconciliation in the movement in the number of shares was performed in order to further assess the completeness of share repurchase data collected from annual financial statements.

4.7.3 Sample selection in respect of trend and composition of payout

For the purpose of investigating the trend and composition of payout, all 116 companies that represent the population of the present study were considered (refer section 4.2). A company included could, however, have had more than one class of ordinary shares in issue during the target period of 2006 to 2018. As the aim of the third research objective was to compare payout methods before and after the introduction of dividends tax, a class of share should have been in issue during the entire period 2006 to 2018. Accordingly, if a new class of ordinary shares was issued during the target period, the payout methods relating to that class of ordinary shares were excluded for the purposes of the third research objective. However, the issuing of a new class of ordinary shares could conceivably have impacted the payout relating to existing ordinary shares in issue. The fact that the present study did not control for the effect of issuing a new class of ordinary shares on payout represents a limitation that could be explored in further research.

4.7.4 Data analysis of trend and composition of payout

Data analysis was performed by means of descriptive statistics and a mixed-model analysis of variance (ANOVA). The ANOVA was performed using TIBCO Statistica 13.5. Descriptive statistics were analysed based on the value of payout methods (in real terms), as well as the frequency of electing payout methods over the respective sub-periods. The non-election of a payout method, indicated by a zero in value, was considered in data analyses and not ignored as missing data. Payout values were

represented in 2006 terms by applying the deflation factors calculated from the consumer price index (CPI) published by Statistics South Africa (2019) as indicated in Appendix F. As the payout ratios over time were intended to be compared, inflation could have explained the trend over the period and inflation was controlled for by considering payout in real terms. In applying a deflation factor the effect of inflation as an explanatory variable is controlled for.

The trend in payout was analysed by means of a mixed-model ANOVA to investigate whether the rand value of different payout methods post-2012 (2013 to 2018) differed significantly from the rand value of different payout methods pre-2012 (2006 to 2011). Accordingly a one-way ANOVA was employed which considered one within-groups factor (a distinction in the post-2012 and pre-2012 period). Fisher's Least Significant Difference (LSD) post-hoc test was applied to determine whether the variables differed statistically significantly between the two sub-periods. Fisher's LSD test is considered suitable for comparing two means that refer to a pairwise comparison (Williams & Abdi, 2010, p. 1). A precondition for Fisher's LSD test to be performed was that the ANOVA omnibus F-Test should be significant (Williams & Abdi, 2010, p. 1). The results of the LSD test were interpreted on the basis of the sign, representing the movement in the mean of each variable, and not in absolute terms. The significance of the movement in each variable was evaluated using F-statistics and the calculated probability (*p*-value) applying a 10% significance level. The significance of results would be interpreted at the 90, 95, and 99% confidence intervals.

Box-Cox transformation was applied to all variables in the mixed-model ANOVA. Box-Cox transformation represents a potential best practice, where normalising data or equalising variance is desired and which incorporates, extends, and improves on traditional normalising approaches (Osborne, 2010, p. 1). In addition, the Kenward-Roger degrees of freedom was applied in the mixed-model ANOVA. In respect of outliers, normal probability plots for each variable were inspected to identify outliers based on which only the retention rate variable was adjusted for outliers. The retention rate variable (winsorised) was calculated on the basis of a robust method of calculating the standard deviation (namely the median absolute deviation method) and the mean (by using the Huber method). Accordingly, each of the outliers was replaced with a value representing three times the calculated standard deviation plus the calculated mean.

4.8 FOURTH RESEARCH OBJECTIVE: INVESTOR TAX PREFERENCE PARAMETERS AND PAYOUT

The fourth research objective of this study was to investigate the relationship between changes in payout methods and changes in investor tax preference parameters since the introduction of dividends tax. The aim of this objective was to investigate whether changes in payout methods were explained by changes in investor-tax preference parameters since the introduction of dividends tax. The research method described in this section was applied in Chapter 8.

4.8.1 Research method in respect of investor tax preference parameters and payout methods

An empirical study, which is explanatory in nature, was employed in which secondary and tertiary quantitative data were analysed. Investor tax preference parameters depict the relative tax burden of dividends versus capital gains for different categories of investors in a company. Investor tax preference parameters were not available on any commercial or public database and were tertiary data calculated in the present study. Secondary data consisted of the value of payout methods (obtained from the annual financial statements and SENS announcements), financial ratios (ROA ratios obtained from the IRESS database), and shareholding data (obtained from annual financial statements and the Refintiv Eikon database).

The model employed by Geiler and Renneboog (2015) was used in order to relate the annual changes in dividends to annual changes in profits, changes in the tax preference parameters of three categories of investors, and the lagged levels of variables. The model was based on Poterba (2004) but originally dates back to Lintner's (1956) partial adjustment models (Geiler & Renneboog, 2015). The model was refined by Geiler and Renneboog (2015) for an investigation at company level, compared to the macro-level investigation conducted by Poterba (2004), and enabled a distinction between different categories of investors. The consideration of the different categories of investors, in turn, afforded an opportunity to study how the payout policies of companies responded when faced with the conflicting tax preferences of investors.

The model specified by Geiler and Renneboog (2015) was employed and refined in four respects:

i. The present study included the tax preference parameters of institutions which are not only limited to pension funds but also include other institutional investors. Geiler and Renneboog (2015) included the tax preference parameters of pension funds and did not include other institutional investors. The departure from Geiler and Renneboog (2015) is submitted as warranted in a South African context as institutional investors in South Africa could be grouped based on the flow-through principle for tax purposes (as discussed in section 2.10.2).

ii. The present study included a distinction between ordinary dividends and total dividends (ordinary dividends plus special dividends). For the reason of specific tax relief being afforded, special dividends that were related to an unbundling transaction were excluded from the investigation. From Geiler and Renneboog (2015) and Poterba (2004), it was not evident whether only ordinary dividends were included or whether special dividends were also included. The flexibility of special dividends could extend to a tax context as the use of special dividends has been noted as a means of accelerating dividend declarations between different tax periods (Hanlon & Hoopes, 2014). The present study investigated the extent to which the inclusion of special dividends affected regression results (namely ordinary dividends compared to total dividends) in order to infer whether special dividends provided flexibility to companies to meet the dividend tax preferences of investors.

iii. The present study included a distinction between registered and beneficial shareholding. From Geiler and Renneboog (2015) there is no evident distinction between registered and beneficial shareholding. A distinction between registered and beneficial shareholding could provide differing insights into the effect of the differential treatment of dividends tax and capital gains tax as these types of shareholding differ in nature (as discussed in section 2.10.1).

iv. The present study also included dummy variables in respect of ownership concentration which were not included in the model estimated by Geiler and Renneboog (2015). Ownership as a recurring theme was identified in the literature review of this study (Figure 2.2) where ownership concentration was a specific aspect included in other studies. An analysis of the relationship between large shareholders, indicative of ownership concentration, and dividend policy is submitted as important in order to better understand dividend policy (Truong & Heaney 2007, p. 668). The tax preference of investors, in turn, has been recognised as relevant when considering ownership concentration (Booth & Zhou 2017; Peyer & Vermaelen 2016). The inclusion of ownership concentration in the model of Geiler and Renneboog (2015) would expand the investigation on the relationship between investor tax preferences and changes in payout methods. High ownership concentration companies are those whose Herfindahl index is above the median value of the index for all companies (Arora & Srivastava, 2019). The Herfindahl index and the extent of holdings by the largest shareholders in companies served as indicators of ownership concentration.

To examine the impact of investor tax preference parameters on dividends, the change in annual dividends is related to changes in profits, investor tax preference parameters, the lagged levels of variables, and ownership concentration dummy variables:

$$\Delta \ln Div_{it} = \beta_0 + [\beta_1 * \Delta \ln ROA_{it}] + [\beta_2 * \Delta \ln \theta_{Individuals,it}] + [\beta_3 * \Delta \ln \theta_{Corporates,it}] + [\beta_4 * \Delta \ln \theta_{Institutions,it}] + [\beta_5 * \ln Div_{it-1}] + [\beta_6 * \ln ROA_{it-1}] + [\beta_7 * \ln \theta_{Individuals,it-1}] + [\beta_8 * \ln \theta_{Corporates,it-1}] + [\beta_9 * \ln \theta_{Institutions,it-1}] + Ownership\ concentration\ dummies + \varepsilon_{it} \quad \text{....(Equation 4.2)}$$

where $\Delta \ln Div_{it}$ represents the change in the natural log of annual dividends for a company-year observation as the dependent variable. Change in the natural log of profits is represented by $\Delta \ln ROA_{it}$. The benefit of applying ROA as a proxy for profitability is that ROA would include the changes in cash flows and working capital that are expected to affect dividend policy (Geiler & Renneboog, 2015). Investor tax preference parameters are depicted by θ and calculated as a function of the applicable tax rates and the shareholding of each category of shareholder (Equation 2.2). The changes in the natural log of investor tax preference parameters are represented by $\Delta \ln \theta_{Individuals,it}$, $\Delta \ln \theta_{Corporates,it}$, and $\Delta \ln \theta_{Institutions,it}$. The lagged levels of variables are depicted by $\ln Div_{it-1}$, $\ln ROA_{it-1}$, $\ln \theta_{Individuals,it-1}$, $\ln \theta_{Corporates,it-1}$, and $\ln \theta_{Institutions,it-1}$. Ownership concentration dummy variables include high concentration in terms of the Herfindahl index and the top shareholder in a company as detailed under data collection in section 4.8.2.4.

Regression variables (except for ownership concentration dummy variables) are transformed to natural log and first differencing is applied in line with the studies of Geiler and Renneboog (2015) and Poterba (2004). The natural log of dependent variables as well as independent variables allows for a better interpretation since the elasticity of an independent variable in relation to the dependent variable is expressed through the log terms (Ghosn, 2019, p. 71). Panel data sets have also been argued as being most useful when controlling for time-constant unobserved features which might be correlated with the explanatory variables in a model (Wooldridge, 2013, p. 474). Pooled ordinary least squares (OLS), first differencing, fixed effects, and random effects are the different estimation methods for unobserved effects in panel data models (Wooldridge, 2013, p. 552). First differencing is applied in the present study to control for unobserved effects in line with Geiler and Renneboog (2015). First differencing also enables the use of standard OLS analysis on the differences (Wooldridge, 2013, p. 474).

The model specified by Geiler and Renneboog (2015) focused only on changes in dividends. The present study employed a variation of the model to also investigate changes in payout other than dividends. Payout other than dividends could serve as substitute for dividends which warrant further

investigation of the relationship between changes in payout other than dividends and changes in profits, investor tax preference parameters, and their lagged levels. High accounting profit is submitted as a prerequisite for payout earnings by different payout channels (Geiler & Renneboog, 2015), changes in profits are accordingly expected to be related to changes in payout methods other than dividends. Payout methods other than dividends have been subjected to tax reform in a South African context since 2011 (Chapter 3) that affect the tax preference for such payout methods and provide an opportunity to investigate the relationship between changes in investor tax preference parameters and changes in payout methods other than dividends. To examine the impact of investor tax preference parameters on other payout methods, the change in annual other payout methods is related to changes in profits, investor tax preference parameters, the lagged levels of variables, and ownership concentration dummy variables:

$$\Delta \ ln\ Other\ payout_{it} = \beta_0 + [\beta_1 * \Delta\ ln\ ROA_{it}] + [\beta_2 * \Delta\ ln\ \theta_{Individuals,it}] + [\beta_3 * \Delta\ ln\ \theta_{Corporates,it}] + [\beta_4 * \Delta\ ln \theta_{Institutions,it}] + [\beta_5 * ln\ Other\ payout_{it-1}] + [\beta_6 * ln\ ROA_{it-1}] + [\beta_7 * ln\ \theta_{Individuals,it-1}] + [\beta_8 * ln \theta_{Corporates,it-1}] + [\beta_9 * ln\ \theta_{Institutions,it-1}] + Ownership\ concentration\ dummies + \varepsilon_{it}$$

….(Equation 4.3)

where Δ ln Other payout$_{it}$ represents the change in the natural log of annual payout other than dividends (capital distributions, additional shares, and share repurchases) as the dependent variable for a company-year observation. The change in the natural log of profits is represented by Δ ln ROA$_{it}$. The changes in the natural log of investor tax preference parameters are represented by Δ ln $\theta_{Individuals,it}$, Δ ln $\theta_{Corporates,it}$, and Δ ln $\theta_{Institutions,it}$. The lagged levels of variables are depicted by ln Other payout$_{it-1}$, ln ROA$_{it-1}$, ln $\theta_{Individuals,it-1}$, ln $\theta_{Corporates,it-1}$, and ln $\theta_{Institutions,it-1}$. Ownership concentration dummy variables include high concentration in terms of the Herfindahl index and the top shareholder in a company as detailed under data collection in section 4.8.2.4.

For both the regression analyses in respect of dividends and other payout methods the null hypothesis (H_0) is that an independent variable had no effect in explaining changes in payout. Whereas the alternative hypothesis (H_a) is that an independent variable had an effect in explaining changes in payout.

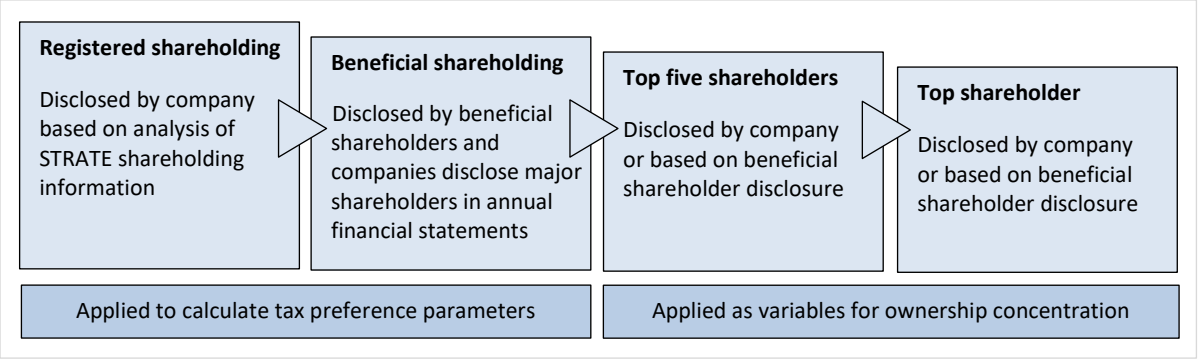
4.8.2 Data collection of investor tax preference parameters

The calculation of investor tax preference parameters is a function of dividend tax preference parameters (Equation 2.1 as detailed under section 2.10) and shareholding. The South African regulatory framework in respect of shareholding of JSE-listed companies is described in detail in section 2.10.1 and section 2.10.2. Shareholding data collected related to four levels of shareholding: registered shareholding, beneficial shareholding, top five shareholders, and top shareholder. Shareholding data collected accordingly ranged from overall shareholding (registered shareholding) to the largest shareholder (top shareholder). The registered shareholding information disclosed by JSE-listed companies represents the overall shareholding of which only a portion would be required to be reported as beneficial shareholding.

Registered and beneficial shareholding were applied separately in the calculation of investor tax preference parameters. Data in respect of the top five shareholders and the top shareholder of each company also had to be collected in order to serve as a variable for ownership concentration in data analysis. Shareholding data collected at four levels are illustrated in Figure 4.2.

Figure 4.2

Levels of shareholding data and application in the present study



The data collection of registered and beneficial shareholding is detailed in the sections that follow.

4.8.2.1 Registered shareholding

JSE-listed companies disclose an analysis of shareholding, which includes a shareholder spread and a distribution of shareholders. The disclosure of shareholder spread includes a distinction between public and non-public shareholding. The percentage of public holdings and the percentage of directors' shareholding, classified as non-public, were captured from annual financial statements in the present study.

The disclosure of a distribution of shareholders (or shareholders analysis) could also extend to a disclosure of a distribution of shareholders according to different categories, including banks, brokers, custodians, close corporations, endowment funds, individuals, retail investors, private investors, directors, empowerment, insurance companies, mutual funds, other corporations, private companies, public companies, retirement funds, share trusts, trusts, nominees, and other trusts. The different categories disclosed by companies in the distribution of shareholders were grouped into the three shareholder categories of interest, namely individuals, corporates, and institutions.

Individual shareholders are contemplated as natural person shareholders. Retail shareholders of a company would include individual shareholders, companies, and family trusts (Johnston, 2019). As disclosure in the distribution of shareholders includes companies as a separate category, retail shareholders would be accepted as individual shareholders. Family trusts would also be included in the individual shareholders' category, and, as such, a trust would be for individual beneficiaries. ‘Empowerment’ as a category in the distribution of shareholders could also include a share trust or share scheme. A typical example of a share trust is one established for the benefit of employees as a share incentive initiative (Fouché, 2012). Share incentive plans are submitted in order to encourage employees to take ownership of their company and increase their performance by aligning the interest of the individuals with that of the shareholders (Hunt, 2014, p. 55). A share trust (or empowerment trust) and a share scheme are therefore included in the individual shareholders' category.

Corporate shareholders are contemplated as public companies, private companies, and close corporations, as disclosed in the distribution of shareholders. Close corporations are also included as a corporate shareholder as a close corporation is included as a company, as defined in section 1 of the Income Tax Act (Republic of South Africa, 2020) for tax purposes. A close corporation would accordingly be subject to the same dividends tax consequences as a company which includes an exemption for dividends tax in terms of section 64F(1)(a) of the Income Tax Act (Republic of South Africa, 2020). A close corporation would also be subject to the same normal tax rates, including capital gains tax inclusion rates, as companies. Empowerment as a category in the distribution of shareholders could also include a company or close corporation, in which case empowerment would be included as a corporate shareholder.

Institutional shareholders include asset owners (typically pension funds and insurance companies) and asset managers (who manage pooled share portfolios on behalf of their own clients and asset owners) (Johnston, 2019, p. 13). Based on the categories disclosed in the distribution of shareholders, all categories, apart from those included as individual shareholders and corporate shareholders, are

submitted as institutional shareholders. Data collected in respect of the distribution of shareholders would be the categories as described above for individual shareholders and corporate shareholders. Institutional shareholding comprising the remaining categories in the distribution of shareholders would then be calculated as the remaining percentage of shareholding (i.e. 100% less individual shareholding less corporate shareholding).

The pilot study of 30 companies (as discussed in section 4.4) accentuated the following aspects:

- The pilot study confirmed the availability of registered shareholding data for the majority of companies. However, the possibility of missing data in respect of the detailed distribution of shareholders not disclosed in annual financial statements was also noted.
- Directors' shareholding was not consistently included as a separate category in the distribution of shareholders by all companies in the pilot study.
- Directors' shareholding held indirectly was not in all instances disclosed in a shareholder spread, but was disclosed elsewhere in annual financial statements (directors' report or directors' interest note).
- Directors' direct and indirect shareholdings should be collected separately.
- Directors' shareholding in certain instances included the directors of subsidiaries.
- Nominees and trusts were disclosed as a category in a shareholder spread in certain instances.

The pilot study pinpointed the need to consider how to deal with missing data. Common methods of dealing with missing data in research include deletion methods and single imputation methods (Edwards & Holmes Finch, 2018). Deletion methods were not preferred for the present study because of the disadvantage of removing data (Edwards & Holmes Finch, 2018). The single imputation method was preferred for the study as missing data would not be removed but would rather be replaced through the generation of a replacement value for each missing data point (Edwards & Holmes Finch, 2018). In instances of missing data where registered shareholding data were not disclosed in annual financial statements for one year, the missing data during that year would be imputed using the average between the preceding and subsequent year. The imputed shareholding would accordingly represent the average movement in shareholding during that year and was considered suitable for this study aimed at investigating the changes in tax preference parameters (which incorporates shareholding) over a period.

The fact that directors' shareholding was not consistently included as a separate category in the distribution of shareholders by companies resulted in directors being included as individual shareholders by default. The category of individual investors consists of families and individuals and,

beside their role as shareholders, individuals may also fulfil a role as an officer or director (Trinchera, 2012, p. 190). As directors' holdings were collected from the shareholder spread and were classified as individual shareholding, and disclosure in the shareholding distribution could already include directors in the individuals' category, the risk of possible double inclusion of directors' holdings was identified. The individuals' category, according to the distribution of shareholders, was adjusted to exclude directors' direct holdings not disclosed separately in the distribution of shareholders in order to avoid double inclusion of directors' holdings.

Directors' direct and indirect shareholdings should also be collected separately. Based on the findings of the pilot study, it was noted that a corporate shareholder of a company that is controlled by or is associated with directors could be disclosed as part of 'directors' holdings' in the shareholder spread. However, such a corporate shareholder, as an associate of the director, would be a separate registered shareholder and should not be included as part of the holdings of the director in the shareholder spread. The total holdings of directors, direct and indirect, as disclosed, were therefore captured during data collection as indicative of the total interest of directors in the company. For the purposes of the classification of directors as individual shareholders, the total holdings of directors were adjusted to exclude the indirect interest of directors to consider only the direct holdings of directors in the data analysis. The indirect interest of directors was calculated as the number of shares indicated as being held indirectly by directors at year-end divided by the total number of shares indicated as being held by directors at year-end (as separately disclosed in the annual financial statements). As the study relied on the distribution of shareholders for the classification of individual, corporate, and institutional shareholders, the directors' total holdings, according to the shareholder spread, should exclude any indirect holdings as indirect holdings would be separately included in the distribution of shareholders.

In respect of directors' shareholding, it was also noted that some companies disclosed the directors of subsidiaries as part of the directors' holdings of the company. This study aimed to collect data in respect of a specific company and the directors' shareholding of that company should only include the directors of that company and not the directors of subsidiaries. During data collection, the shareholding of directors of subsidiaries was thus excluded from directors' shareholding of a company.

The disclosure of 'nominees and trusts' as a category in a shareholder distribution is a broad disclosure category - in respect of which classification as individual, corporate, or institution in this study was necessary. For the purposes of this study, family trusts and employee trusts were classified as individuals on the premise that individuals are the beneficiaries of such trusts. Other empowerment

categories identified as relating to a company or close corporation were included as corporate investors. If the disclosure of nominees and trusts could not be linked with an empowerment trust, family trust, or corporate empowerment investor, the category was then regarded as part of the institutional category for the purposes of this study. Establishing the true identity of the ultimate investors could represent a daunting challenge as a result of confidentiality provisions and the added complexity of nominee companies often being recorded as the registered shareholders on the company's share register despite holding shares on behalf of underlying beneficial shareholders (Johnston, 2019, p. 13). Consequently, this study accepted nominees and trusts, not specifically classified as individual or corporate investors, as institutional investors.

In conclusion, the data collection of registered shareholding is summarised in Table 4.2.

Table 4.2

Registered shareholding data collection

Description	Data source and description
Individual shareholding percentage	Data source: Annual financial statements Description: Distribution of shareholders classified as individuals, retail shareholders, private investors, directors, and empowerment trusts. (Only direct holdings of directors included after adjustment for indirect holdings. Individual shareholding would also exclude directors' holdings if not disclosed separately in the distribution of shareholders).
Corporate shareholding percentage	Data source: Annual financial statements Description: Distribution of shareholders classified as close corporations, own holdings, other corporations, private companies, and public companies.
Institutional shareholding percentage	Data source: Calculated Description: Balancing figure calculated as: 100% less individual shareholding less corporate shareholding. (representing the following investor profiles: banks and brokers, endowment funds, insurance companies, medical schemes, mutual funds, retirement funds, universities, other corporate bodies, nominees, other trusts (not family trust or empowerment trusts)).

Institutional shareholding as a balancing figure was calculated in this study. As a logical limitation, the calculated institutional shareholding cannot be negative and would be limited to zero percent if the calculated balance is negative. One explanation for a possible negative figure could be directors' holdings, which were collected separately for this study; however, they could already be included in the individual category in the distribution of shareholders in the annual financial statements (directors' holdings not separately disclosed in the distribution of shareholders).

4.8.2.2 Beneficial shareholding

Data collection in respect of beneficial shareholders commenced with consideration of the disclosures by companies in annual financial statements. Companies disclosed different methods by which compliance with section 56 of the Companies Act was pursued. Regular analysis of STRATE-registered holdings by the companies was indicated as a method (Adcock Ingram Limited, 2019, p. 171; Nampak Limited, 2019, p. 102; Tiger Brands Limited, 2019, p. 107). Another method was a register of disclosures of beneficial interests made by registered shareholders acting in a nominee capacity, and the disclosures made by fund managers in terms of section 59 of the Companies Act (Lewis Group Limited, 2016, p. 108). Some companies also indicated the procurement of services of another external company as method; for example, shareholder analysis compiled by VACO Stakeholder Intelligence utilising the company's transfer secretaries (Altron Limited, 2015, p. 61). These methods employed resulted in disclosed beneficial shareholding data, which was considered in this study.

Data collected in respect of the major beneficial shareholders as disclosed by companies were the name of the largest beneficial shareholder and the number of major beneficial shareholders. The pilot study of 30 companies (as discussed in section 4.4) in respect of data collection also noted the following limitations in respect of beneficial shareholders disclosed in annual financial statements:

- JSE-listed companies are required to disclose major beneficial shareholders holding five percent or more of any class of the listed company's capital (JSE, 2017, Listings Requirements, paragraph 8.63(e)). Based on the pilot study, it was however noted that certain companies disclosed beneficial shareholding of three percent and as a consequence not all companies consistently provided beneficial holdings of five percent or more.
- Some companies only disclosed one major beneficial shareholder owing to the application of thresholds. The top five shareholders were thus not disclosed by all companies.
- The major beneficial shareholding disclosed provided only the name of the shareholder, which required the manual classification of shareholders as individuals, corporates, or institutions.

Owing to these limitations noted during the pilot study of 30 companies, the disclosures in respect of beneficial shareholding in the annual financial statements were not considered suitable for this study as the top five shareholders were not consistently disclosed by all companies and also, if disclosed, the classification of such shareholders as individual, corporate, or institution would have had to be performed manually. For the purpose of this study, data collection in respect of the top five shareholders was considered from a commercial database instead.

The pilot study of 30 companies considered data available on three commercial databases, namely Bloomberg, IRESS, and Refinitiv Eikon. Historical shareholding information from Refinitiv Eikon had been available for South African listed companies from 2010 and could be directly extracted to Microsoft Excel along with the classification of shareholder type and sub-type. The shareholder sub-type would enable the classification of three categories of investors for which tax preference parameters would be calculated. Based on shareholder names provided on IRESS, classification into different categories was illustrated as theoretically possible (Dube, 2018, p. 190). This study, however, rather relied on the classification of shareholders by Refinitiv (previously Thomson Reuters), which has had more than 30 years of experience and maintains the most complete global Share Ownership & Profiles data in the industry (Refinitiv, 2020). Shareholding information by Refinitiv is compiled from the filings of shareholders, with only investments of beneficial shareholders processed (Thomson Reuters, 2016a).

The findings of the pilot study of 30 companies (as discussed in section 4.4) revealed the following advantages of Refinitiv Eikon data in respect of beneficial shareholders over shareholding data disclosed in annual financial statements:

- Nominees and custodians' holdings are not included in shareholder history reports on Refinitiv Eikon (Thomson Reuters, 2016a), whereas annual financial statements would include such holdings, which would complicate the identification of the ultimate shareholder.
- Major beneficial shareholders, according to Refinitv Eikon, are classified according to sub-types (individual investors, corporations, funds, etc.), whereas annual financial statements do not include a classification of major shareholders according to sub-types.

The findings of the pilot study of 30 companies also informed the need for one reclassification in respect of share trusts and share schemes. Based on data collected from Refinitiv Eikon, it was noted that share trusts and schemes were classified as 'corporation' or 'holding company' in the shareholder history reports. In this study, the beneficial holding of a share trust, share scheme, or family trust is argued as being for the benefit of individuals and accordingly included as individual shareholding. For the purposes of this study, any classification of a share trust or share scheme as 'corporation' or 'holding company' would be reclassified as 'individual'.

Beneficial shareholding data collected are summarised in Table 4.3.

Table 4.3

Beneficial shareholding data collection

Description	Data source and description
Individual shareholding percentage	Data source: Refinitiv Eikon Description: Shareholder History Report (sub-types: Individual Investor & Corporation (share trust or share schemes))
Corporate shareholding percentage	Data source: Refinitiv Eikon Description: Shareholder History Report (sub-types: Corporations (not share trust or share scheme) & Holding Company (not share trust or share scheme))
Institutional shareholding percentage	Data source: Refinitiv Eikon Description: Shareholder History Report (sub-types: other than individual and corporate shareholders)
Top five shareholder percentage	Data source: Refinitiv Eikon Description: Top five shareholders ranked according to shareholding
Top shareholder identity	Data source: Refinitiv Eikon Description: Top shareholder ranked according to shareholding

Ownership coverage on Refinitiv Eikon would not necessarily add up to 100% owing to the reporting requirements for certain jurisdictions only requiring disclosure exceeding thresholds (Thomson Reuters, 2016b). Only beneficial shareholding required to be reported would be included, resulting in total shareholding not adding up to 100%.

Ownership coverage on Refinitiv Eikon could potentially also exceed 100% of the shares in issue owing to consolidation of multiple ownership filing sources and the timing of the filings (Thomson Reuters, 2016b). Weighing the reported percentages to express the percentage of each category of total categories reported is not suitable for the purposes of this study as the reporting of the different categories would then affect each other. The percentage shareholding reported by one category which remained constant from one year to another would have been affected by a movement in reporting of other categories if weighing were applied. As this study was concerned with the changes in percentage shareholding from one year to the next, the percentage of shareholding reported for each category was used as reported on Refinitiv Eikon.

4.8.2.3 Calculation of investor tax preference parameters

The calculation of dividend tax preference parameters (Equation 2.1 as detailed under section 2.10) is based on the tax rates applicable to a year of assessment, while the investor tax preference parameters (Equation 2.2 as detailed under section 2.10) incorporate the percentage shareholding of each category of investor.

The marginal tax rate on dividends and the marginal tax rate of capital gains for each category of investor were obtained from SARS Tax Pocket Guide for each of the relevant tax years of assessment (SARS, n.d.). The tax rates employed in the calculation would be the same tax rates based on which after-tax values were calculated (data collection in respect of tax rates described in section 4.5.2.1). Institutional shareholding was calculated based on a tax-neutral position in respect of dividends tax and capital gains tax. (The tax-neutral position of a fund investor since the introduction of dividends tax is elaborated on under section 2.10.2). The year of assessment for all categories of taxpayers was assumed to end at the end of February each year in order to make a meaningful comparison between the categories (as detailed in the assumption in section 4.5.2.2). On the assumption that the tax year of assessment of an investor ends at the end of February each year, if the declaring company's year ended during the month of January or February, the investor's tax year of assessment was accepted as the year in which the declaring company's financial year ended. If, however, the declaring company's year ended during a month other than January or February, the tax year of assessment would be the year immediately after the year in which the declaring company's year ended.

4.8.2.4 Ownership concentration dummy variables

Ownership concentration dummy variables pertained to high ownership concentration in terms of the Herfindahl index and the classification of the top shareholder.

The Herfindahl index was calculated per company as the square of percentage shareholding held by the top five shareholders (Harada & Nguyen, 2011). For high ownership concentration companies, the Herfindahl index was above the median value of the index for all companies, and low ownership concentration companies were those whose Herfindahl index was less than the median value of the index for all companies (Arora & Srivastava, 2019). A binary variable was applied to indicate company-year observations with high ownership concentration index as '1' and low ownership concentration as '0'.

Data collected in respect of the top shareholder included the identity of the shareholder (Table 4.3) in order to classify the top shareholder as individual, corporate, or institution in terms of description of categories in section 4.8.2. A binary variable was applied to indicate company-year observations

with a top individual, corporate, or institution shareholder as '1' respectively. A binary variable of '0' was accordingly applied when the top shareholder was not an individual, corporate, or institution. A binary variable of '1' therefore indicated the presence of a top individual shareholder, a top corporate shareholder, or a top institution shareholder which could elicit a payout policy response based on tax preference. Data collected in respect of a top individual shareholder was extended in order to determine whether a top individual shareholder was a director of the company. For each company-year observation with a top individual shareholder, the annual financial statements of that company was scrutinised in order to record whether the top individual shareholder was a director of that company. A binary variable was applied to indicate company-year observations with the top individual shareholder a director as '1' and the top individual shareholder not a director as '0'.

4.8.2.5 Summarised data collection of regression variables

Data collection related to payout methods, corporate profits, investor tax preference parameters, the lagged levels of variables, and ownership concentration dummy variables. A summarised description of regression variables and data sources is provided in Table 4.4 to serve as a point of reference for subsequent discussions.

Table 4.4

Regression variables and data collection – Tax preference parameters and payout

Variable	Description	Data source
	Dependent variables	
$\Delta \ln Div_{it}$	Change in the natural log of annual dividends (ordinary and total dividends)	Annual financial statements and IRESS database
$\Delta \ln Other\ payout_{it}$	Change in the natural log of annual payout other than dividends (capital distributions, additional shares, and share repurchases)	Annual financial statements and IRESS database
	Explanatory variables	
$\Delta \ln ROA_{it}$	Change in the natural log of profits	IRESS database
$\Delta \ln \theta_{Individuals,it}$	Change in the natural log of individual tax preference parameters	Calculated
$\Delta \ln \theta_{Corporates,it}$	Change in the natural log of corporate tax preference parameters	Calculated
$\Delta \ln \theta_{Institutions,it}$	Change in the natural log of institution tax preference parameters	Calculated

Variable	Description	Data source
ln Div_{it-1}	Lagged levels of the natural log of annual dividends	Annual financial statements
ln Other $payout_{it-1}$	Lagged levels of the natural log of annual other payout	Annual financial statements
ln ROA_{it-1}	Lagged levels of the natural log of profits	IRESS database
ln $\theta_{Individuals,it-1}$	Lagged levels of the natural log of individual tax preference parameters	Calculated
ln $\theta_{Corporates,it-1}$	Lagged levels of the natural log of corporate tax preference parameters	Calculated
ln $\theta_{Institutions,it-1}$	Lagged levels of the natural log of institution tax preference parameters	Calculated
	Dummy variables as explanatory variables	
High concentration	High ownership concentration based on calculated Herfindahl index (top five shareholders)	Refinitiv Eikon database
Top individual	Top shareholder is an individual shareholder	Refinitiv Eikon database
Top corporate	Top shareholder is a corporate shareholder	Refinitiv Eikon database
Top institution	Top shareholder is an institutional shareholder	Refinitiv Eikon database

The data collection of regression variables was therefore predominantly from annual financial statements and two commercial databases (IRESS and Refinitiv Eikon). Investor tax preference parameters, being the main variable of interest in this study, were calculated based on tax rates and shareholding data collected. In the sections which follow the sample selection and data analysis in respect of regression analyses are elaborated on.

4.8.3 Sample selection in respect of investor tax preference parameters and payout methods

The sample selection in respect of the fourth research objective related to four aspects for which company-year observations were excluded, namely:

- observations with a negative ROA;
- observations without the required shareholding data;
- observations with no change in payout other than dividends (capital distributions, additional shares, and share repurchases); and
- observations affected by the COVID-19 pandemic.

To resolve the issue of negative earnings in a log-log specification, Geiler and Renneboog (2015) included only observations with a positive ROA, in line with Poterba (2004). This study accordingly also excluded company-year observations with a negative ROA for which a natural log could not be calculated.

During data collection, companies were grouped into different disclosure categories depicting the extent to which a detailed distribution of shareholders was disclosed (registered shareholding) and shareholder history reports were available (beneficial shareholding). For the purposes of this study, a detailed distribution of shareholders and shareholder history reports were required to calculate the shareholding of the three categories of shareholders.

In respect of registered shareholding coverage, if a company did not disclose a detailed distribution per category (registered shareholding) for all years, missing data were imputed in terms of the method described in section 4.8.2.1. As a result of data requirements, companies were excluded if no detailed distribution of shareholders were disclosed or no shareholder history report could be obtained. In respect of registered shareholding coverage, a detailed distribution per category for each year listed was collected for 69 companies (59.48% of the population). A detailed distribution per category but not for all years was collected for nine companies (7.76% of the population) - for five of these companies (4.31% of the population) missing data were imputed for 10 company-year observations resulting in shareholding data being available and included in the present study, whereas the remaining four companies were excluded due to the required shareholding data not being available. A partial distribution per category was collected for a further four companies and no detailed distribution (per category) was collected for 34 companies. In total, 74 companies (63.79% of the population) were included in the calculation of tax preference parameters and data analysis based on registered shareholding. The remaining 42 companies (36.21% of the population) that disclosed partial distributions (not for all categories) or did not disclose detailed distributions were excluded owing to insufficient data being available.

In respect of beneficial shareholding coverage, a shareholder history report for each year listed was obtained for 110 companies (94.83% of the population). The remaining six companies were excluded from the data analysis owing to insufficient data being available (a shareholder history report only for certain years or no shareholder history report).

A summary on the availability of shareholding data is displayed in Table 4.5 and the relevant company names are detailed in Annexure A.

Table 4.5

Number of companies and percentage of population based on shareholding data availability

Description	Registered shareholding:		Beneficial shareholding:	
	Number of companies	*Percentage of population*	*Number of companies*	*Percentage of population*
Shareholding data available (companies included)	69	59.48%	110	94.83%
Shareholding data imputed (companies included)	5	4.31%	-	-
Shareholding data not available (companies excluded)	42	36.21%	6	5.17%
Total	**116**	**100.00%**	**116**	**100.00%**

Note. The number of companies and the percentages of the total population (116 companies) are indicated based on shareholding data availability.

Evident from Table 4.5 is that the majority of companies disclosed detailed distributions per shareholding category, which were included in the calculation of tax preference parameters and data analysis. Furthermore, the overwhelming majority of companies, that is 110 companies in respect of beneficial shareholding, had shareholder history reports available for each year listed and were consequently included in the present study.

Payout other than dividends (capital distributions, additional shares, and share repurchases) are generally not employed as payout method on an annual basis and could be classified as infrequent payout methods. The flexibility hypothesis predicts that (regular) dividends are used to disburse permanent earnings, and more flexible payout methods (special dividends and share repurchases) are used to disburse transitory earnings (Andres et al., 2015). General (open-market) share repurchases and special dividends can also be argued to be infrequent and discrete payments – as opposed to share repurchases from a specific group of shareholders and increases in regular dividends which generally require sustaining the increased dividend payment rate in future periods (Wesson et al., 2018). This study only included company-year observations with changes in payout other than dividends for purposes of data analysis, resulting in all company-year observations with no change in other payout methods being excluded. A focus on company-year observations with changes in other payout methods would enable an investigation into the relationship between investor tax preference parameters and changes in other payout methods. Contrary to the analysis in respect of the trend and composition of total payout (section 4.7.3) which specifically included zero value as indicative of the

non-election of a payout method, the data analyses in respect of investor tax preferences parameters would exclude zero values indicative of no change in other payout methods. In respect of registered shareholding, there were 482 company-year observations in total, of which only 233 observations had changes in other payout methods (resulting in the exclusion of 249 observations with no change in other payout methods). In respect of beneficial shareholding, there were 739 company-year observations in total of which only 356 observations were identified as having changes in other payout methods (resulting in the exclusion of 383 observations with no change in other payout methods).

The final sample selection aspect related to the exclusion of certain 2019 company-year observations as a result of the COVID-19 pandemic. The 2019 financial year of companies could have been affected by the COVID-19 pandemic in respect of payout policies. In recognition of the COVID-19 pandemic and its potential negative consequences, JSE-listed companies have approached the JSE with requests to cancel payment, or to postpone or make changes to the value of the dividends that have previously been declared pursuant to the JSE corporate actions timetable (JSE, 2020a, p. 1). The JSE clarified that companies could only cancel a dividend and the resultant payment prior to the finalisation date (JSE, 2020b, p. 1). Companies were still included if the COVID-19 pandemic was merely noted as an event after the reporting date for financial year-end 2019, which did not require adjustment in the 2019 financials (Grindrod Limited, 2019, p. 222; KayDav Group Limited, 2019, p. 73; Massmart Holdings Limited, 2019, p. 85; Metair Investments Limited, 2019, p. 34; MTN Group Limited, 2019, p. 6; SUN International Group Limited, 2019, p. 89). Some companies indicated that the impact of COVID-19 was not expected to have any material effect on their going-concern status owing to their still being operational during the lockdown period (Trencor Limited, 2019, p. 5). However, if companies noted in annual financial statements or SENS announcements that dividends were reduced or deferred as a result of COVID-19, the 2019 data of these companies were excluded from the data analysis – resulting in the exclusion of two companies (ADvTech Limited, 2019; Bell Equipment Limited, 2019).

4.8.4 Data analysis of investor tax preference parameters and payout methods

Data analysis was performed by means of descriptive statistics and regression analyses. OLS regression was performed using TIBCO Statistica 13.5 and quantile regressions were performed using IBM SPSS Statistics Version 27. A regression analyses of panel data was estimated with OLS to relate the annual changes in payout (Δ ln Dividends and Δ ln Other payout respectively) to annual changes in corporate profits (Δ ln ROA), changes in the tax preference parameters of three categories of investors (Δ ln θ), and the lagged levels of variables (Equation 4.2 and Equation 4.3 as detailed under section 4.8.1).

In addition to OLS employed, the present study employed quantile regressions as an estimation method in respect of other payout methods (Δ ln Other payout). Econometric time-series analysis traditionally relies on models that exclusively employ first and second moment information, resulting in asymmetries and heavy tail behaviour essentially being invisible (Koenker, 2017, p. 9). Asymmetries and heavy tail behaviour, features that are essentially invisible when estimating traditional time-series models, can be revealed with the aid of quantile regression methods (Koenker, 2017, p. 9). Compared to traditional OLS regression which only describes the relationship between the independent variables and the conditional mean of the dependent variable, quantile regression is more general and describes the relationship between the independent variables and any specified percentiles of the conditional distribution of the dependent variable, thereby leading to more complete inferences (Koenker & Hallock, 2001 in Yang et al., 2020, p. 191). Quantile regression has also been submitted as suitable in the case of heteroscedasticity (Waldmann, 2018, p. 216). The present study employed quantile regressions for other payout methods as a distinction between company-year observations for which other payout methods increased and decreased would be possible. A distinction between increases and decreases in other payout methods was warranted as other payout methods could be more infrequent in nature than ordinary dividends (refer to section 4.8.3). Accordingly, a distinction between increases and decreases in other payout methods provided an opportunity to gain empirical insights into tax as an explanation for increases or decreases in other payout methods.

There are six classical linear model assumptions considered ideal for multiple regression analysis: linearity in the parameters, no perfect collinearity, the zero conditional mean assumption, homoscedasticity, no serial correlation, and normality of the errors (Wooldridge, 2013, p. 845). These classic assumptions were assessed in the present study as follows:

i. The models employed in the present study (Equation 4.2 and Equation 4.3) are submitted as linear in parameters as none of the model parameters are multiplied or divided by other parameters and none of the model parameters appears as an exponent.
ii. Normal probability plots were inspected in order to assess the normality of data by considering the distribution of residuals. Data arising in real studies are often so skewed that standard statistical analyses of these data yield invalid results (Feng et al., 2014). The log transformation is, arguably, the most popular among the different types of transformations used to transform skewed data to approximately conform to normality in order to increase the validity of the associated statistical analyses (Feng et al., 2014). The models estimated in this study also applied log transformation of variables, in line with Poterba (2004) as well as Geiler and

Renneboog (2015), which aided in addressing the normality assumption to increase the validity of the associated statistical analyses.

iii. The Breusch-Pagan test (Breusch & Pagan, 1979) was performed in order to assess heteroscedasticity. If heteroscedasticity was detected, the multiple regression analysis in the present study was adjusted using the MacKinnon and White procedure for testing the significance of the parameters by adjusting for heteroscedasticity (MacKinnon & White, 1985).

iv. The Durbin-Watson test (Durbin & Watson, 1950) was performed in order to assess autocorrelation of variables at the five percent significance level. To reject the null hypothesis (of no serial correlation) the Durbin-Watson statistic should be significantly less than two (Wooldridge, 2013, p. 419). In the present study the Durbin-Watson statistic which approximates two would be accepted as an indication of no autocorrelation of variables.

v. The variance inflation factor for each variable was calculated in order to assess multicollinearity (correlation between independent variables). Setting a cut-off value for the interpretation of variance inflation factor is recognised as arbitrary and perhaps not especially helpful (Wooldridge, 2013, p. 419). Nonetheless, a variance inflation factor above 10 was employed as cut-off (Wooldridge, 2013, p. 419) and in principle a lower variance inflation factor would indicate a lower risk of multicollinearity. In the study a variance inflation factor of five or less would conservatively be interpreted as no multicollinearity between independent variables.

In respect of outliers, the Grubbs test for outliers was performed in respect of each variable. Each variable containing entries which were identified as outliers was winsorised by replacing the upper outlying entries with the value of the maximum of the non-outlying company-year observations plus 10% of the non-outlying interquartile range. Similarly, lower outliers were replaced by the non-outlying minimum value minus 10% of the non-outlying interquartile range.

The interpretation of coefficients of regression results in this study is recognised as challenging owing to the fact that data are log-transformed and first differencing is applied. The study would however base findings on the sign of coefficients and the significance levels rather than inference based on the value of coefficients. The only inference based on the comparison of coefficients would be to evaluate the importance of each investor tax preference parameter, relative to each other, in explaining changes in payout. In this regard the standardised beta coefficients of investor tax preference parameters would be compared with each other. The classic motivation for the use of standardised regression coefficients in studies across many fields and contexts is to attempt comparisons within and between studies (Lu & Westfall, 2019). Concerns about the use of standardised regression coefficients submitted in other studies – as summarised by Lu and Westfall (2019) – are that

collinearity among predictor variables could result in misleading interpretation and that causality is not addressed by standardised regression coefficients. The study addressed the two concerns by: (i) specifically testing for collinearity of predictor variables; and (ii) not making any inference on the causality. The significance of variables was evaluated using t-statistics and the calculated probability (*p*-value) for each variable by applying a 10% significance level. The significance of results would be interpreted at the 90, 95, and 99% confidence intervals.

This study focused on the interpretation of the short-run effect (or short-run elasticity) of a change in tax-preference on a change in dividends which is captured, in line with Poterba (2004) as well as Geiler and Renneboog (2015), by the coefficients of current investor tax preference parameters, being β_2, β_3, and β_4 in Equation 4.2. Support for the proposition relating to the fourth research objective was submitted based on the short-run effect of a change in tax-preference on a change in payout methods. Accordingly, support for the proposition relating to the fourth research objective in respect of changes in other payout was based on β_2, β_3, and β_4 in Equation 4.3. The long-run effect (or long-run elasticity) of a change in tax-preference on a change in dividends is captured, in line with Poterba (2004) as well as Geiler and Renneboog (2015), by the negative lagged levels of tax preference parameters divided by the lagged levels of dividends, being $-\beta_7/\beta_5$, $-\beta_8/\beta_5$, and $-\beta_9/\beta_5$ in Equation 4.2.

The long-run effect of a change in tax-preference on a change in dividends depicts the sensitivity of payout towards tax changes over the long term. The present study only considered the long-run effect of a change in tax-preference on a change in dividends for comparison with the findings of Geiler and Renneboog (2015) to allow for a comparison between a developing country (South Africa) and a developed country (the UK).

4.9 VALIDITY AND RELIABILITY CONSIDERATIONS

Validity measures the degree to which research achieves what it sets out to do (Smith, 2020, p. 45). A distinction has been drawn between four kinds of validity (statistical conclusion validity, construct validity, internal validity, and external validity) and were considered in relation to this study.

Statistical conclusion validity refers to the validity of inferences about the correlation (covariation) between treatment and outcome (Shadish et al., 2002). Threats to statistical conclusion validity arise when inaccurate inferences are drawn from the data because of inadequate statistical power or the violation of statistical assumptions (Creswell, 2014, p. 177). This study based the regression analysis of panel data in respect of dividends (Equation 4.2) on the study of Geiler and Renneboog (2015). The regression analysis of panel data employed was considered appropriate for this study which

aimed to investigate the changes in payout of more than one company (cross-sectional dimension) over a period of tax reform (time-series dimension) resulting in panel data being compiled and analysed. The statistical techniques applied in this study were determined on the basis of consultation with the Centre for Statistical Consultation at Stellenbosch University. The statistical power of analysis and the assumptions of statistical techniques were assessed during data analyses in order to contribute to statistical conclusion validity.

Threats to construct validity occur when investigators use inadequate definitions and measures of variables (Creswell, 2014, p. 177). In this study the three central concepts of 'investor', 'tax reform' and 'payout policies' were defined in Chapter 1. The concepts of investor and payout policies as defined in Chapter 1 correspond with the study of Geiler and Renneboog (2015) on which the present study is based. In respect of the measurement of variables, the only novel unit of analysis introduced in this study is the days-to-declaration variables (relating to the second research objective), in respect of which a peer-reviewed article was published (Nel & Wesson, 2019) which provides some comfort on the measure of the novel unit of analysis. In respect of the measure of regression variables, this study employed the definition of variables as defined in Geiler and Renneboog (2015), which reduce the risk of inadequate measure of regressions variables. Ownership concentration dummy variables (section 4.8.2.4) added to the model of Geiler and Renneboog (2015) were binary variables of which applicable measurement was also based on previous literature. This study consequently asserts construct validity on the basis of previous studies and a detailed rigorous data collection method.

Questions of validity are best considered in the trade-offs, inter alia, between internal validity and external validity (Smith, 2020, p. 217). Internal validity refers to the validity of inferences about whether observed covariation between variables reflects a causal relationship as variables are manipulated or measured (Shadish et al., 2002). A threat to internal validity could also arise if different definitions are used in source data or by fellow researchers (Smith, 2020, p. 217). This was addressed in this study by inserting definitions for the three central concepts (investor, tax reform, and payout policies) in Chapter 1. This study, as an archival study, did not aim to establish a causal relationship between payout and investor-level taxes, but rather to investigate the relationship between these variables which lowers the internal validity of this study. An archival study would, however, normally have more external validity than experimental or simulation approaches because of its reference to empirical data (Smith, 2020, p. 217). This study as an archival study, therefore, asserted external validity on the basis of inference from empirical data. Sampling bias is however recognised as a common threat to external validity in terms of generalising to the population (Burns & Burns, 2008). As this study selected samples based on non-probability sampling for certain research objectives, a

threat to external validity was recognised which could result in findings not being generalisable to the entire population. The findings of this study are, however, still submitted as having an explanatory value in respect of the effect of taxes on payout policies despite findings not being generalisable to all JSE-listed companies owing to only including companies in selected sectors and sampling applied in respect of two research objectives of the study.

Reliability establishes the consistency of the research instrument in that the result it achieves should be similar in similar circumstances (Smith, 2020, p. 45). A research instrument is described as the means by which data were obtained for an analysis (Hofstee, 2006, p. 115). This study aimed to contribute to reliability by means of detailed documentation of methods employed for data collection to enable replication in other studies. As data source this study also relied on annual financial statements of JSE-listed companies which are subjected to annual audits, contributing further to the reliability of data used. The databases utilised in this study (IRESS and Refinitiv Eikon) are well-known commercial databases regularly applied by researchers and in practice, which provide some comfort regarding the reliability of data obtained from these databases. Based on the within-methods triangulation employed the credibility of the present study was improved. A point of differentiation could also provide an opportunity for triangulation (Smith, 2020). The hand-collection of data for at least one variable in a study is also recommended to provide a point of differentiation when publicly available databases are relied upon (Fogarty, 2006, in Smith, 2020).

In this study investor tax preference parameters were hand-collected and served as a point of differentiation from other studies and an opportunity for triangulation. Hofstee (2006, p. 53) furthermore advocated that one of the primary ways to ensure the reliability of research methods was to complete a preliminary or pilot study. In this regard, this study employed a pilot study in respect of the second, third and fourth research objectives in order to assess data availability methods and applicable calculations.

4.10 LIMITATIONS OF THE STUDY

This study was subject to limitations in scope which are detailed in this section and could serve as basis for further research.

First limitation: Determinants of payout methods other than tax

The aim of this study was not to argue investor-level tax reform as the main or sole factor in a choice between different payout methods, as previous literature has also elucidated other significant factors apart from taxes as determinants that affect payout choices (section 2.9.2). Despite the varying motivations for payout choices, profitability has been submitted as a prerequisite for payout earnings

by different payout channels (Geiler & Renneboog, 2015, p. 192). More profitable companies, whose operations are based on ROA, have been found to consistently pay higher dividends (Badenhorst, 2017, p. 7; Nyere & Wesson, 2019, p. 13). The present study only included profitability and previous payout (lagged levels) as a determinant in investigating the effect of investor-level tax reform on payout policies.

Company size has also been found to be negatively correlated with payout flexibility and that larger South African companies distribute a lower fraction of payout as share repurchases than smaller companies (Munzhelele, 2019). Share repurchases in South Africa during the period 1999 to 2009 were found to be dominated by smaller companies that repurchased shares more frequently, while a few large companies dominated the share repurchase value (Wesson et al., 2015, p. 52). In investigating the trend and composition of total payout, company size could explain a change in payout from the pre-2012 to the post-2012 period. The company size classifications (small, medium, and large) in the present study were as follows: Large companies represented by companies with a market capitalisation exceeding R10 billion; medium size companies represented by companies with market capitalisation exceeding R1 billion but not exceeding R10 billion; and small companies represented by companies with market capitalisation of R1 billion or less (SA Shares, 2019). This study acknowledged the implication of company size and controlled for company size by including companies from all three size categories (refer to section 4.2).

Second limitation: Distinction between dividend and foreign dividend

From a tax perspective, a distinction is drawn between a dividend and a foreign dividend. The definition of dividend relates to companies that are residents of South Africa (effectively managed or registered in South Africa). If a company is not a resident of South Africa, the definition of foreign dividend would apply (extract from the Income Tax Act included in Appendix B). Any foreign dividend is then defined with reference to the laws relating to the country where such a company is effectively managed or registered. A foreign dividend would, in turn, only be subjected to dividends tax in South Africa if the foreign company is listed in South Africa and the beneficial owners are residents of South Africa, as contemplated in terms of section 64D of the Income Tax Act (Republic of South Africa, 2020). Conceivably, JSE-listed companies could declare a dividend or foreign dividend for tax purposes, both of which could be subjected to dividends tax. The present study is premised on the definition of dividend because a focus on foreign dividend is considered impractical owing to the requirement to consider the applicable laws and regulations where a foreign company is effectively managed or registered.

Third limitation: Preference shares and anti-avoidance provisions

For tax purposes, a distribution in respect of a preference share would constitute a dividend as defined in terms of section 1 of the Income Tax Act (Republic of South Africa, 2020). For tax purposes, preference shares and ordinary shares could be subjected to dividends tax; however, preference shares could be subject to specific anti-avoidance provisions resulting in dividends being subjected to normal tax rather than dividends tax. This study excluded preference shares because of specific anti-avoidance aspects which could result in dividends not being subjected to dividends tax. Sections 8E and 8EA of the Income Tax Act apply to hybrid-equity instruments and third-party-backed shares which result in preference dividends being regarded as income received or accrued. Preference dividends regarded as income would not be subject to dividends tax in terms of section 64F(1)(l) of the Income Tax Act (Republic of South Africa, 2020), but would be included in the taxable income of the investors and subjected to normal tax according to the Income Tax Act.

Thus, preference dividends disclosed in annual financial statements would not be subjected to dividends tax if classified as a hybrid-equity instrument or a third-party-backed share. The study did not attempt to classify preference shares as hybrid-equity instruments or third-party-backed shares because of information not being readily available from disclosures in annual financial statements. Furthermore, sections 8E and 8EA of the Income Tax Act were amended with effect from 1 October 2012, which expanded on the scope of these sections to apply in respect of any shares, not exclusively preferences shares. The study acknowledges that ordinary shares could also be subject to section 8E and 8EA if the requirements are met; however, owing to information not being readily available to ascertain classification, this study assumed that these anti-avoidance provisions did not apply in respect of ordinary shares.

Fourth limitation: Anti-avoidance provisions

The Income Tax Act contains anti-avoidance provisions which could result in additional dividends tax or capital gains tax being payable. A loan or advance to a resident that is not a company nor connected to the lender by virtue of any share would result in a dividend in specie to the extent that market-related interest is not charged in terms of section 64E(4) of the Income Tax Act (Republic of South Africa, 2020). The amount nominated as a reduction in CTC could also be adjusted in certain group company structures where foreign investors increase their CTC and avoid dividends tax through capital distributions in terms of section 8G of the Income Tax Act (Republic of South Africa, 2020). An exemption from dividends tax would be disallowed in transactions where dividends were ceded to, or borrowed by, a taxpayer exempt from dividends tax in terms of section 64EB of the Income Tax Act (Republic of South Africa, 2020). An exemption from dividends tax would also be disallowed in

cases where investors intending to sell shares converted sale proceeds (or consideration) to dividends in terms of section 22B of the Income Tax Act (Republic of South Africa, 2020). During 2017 amendments were made to section 22B of the Income Tax Act in order to strengthen the anti-avoidance rules dealing with dividend stripping, with further amendments during 2018 also resulting in tax claw back of previous exemptions in cases where corporate roll-over relief was previously applied contrary to the intention of section 22B (National Treasury, 2018). The capital loss a taxpayer can deduct in calculating capital gains tax could also be limited in a dividend stripping transaction within the scope of paragraph 19 of the Eighth Schedule to the Income Tax Act (Republic of South Africa, 2020).

This study did not attempt to determine the applicability of anti-avoidance provisions owing to the information required not being publicly available. It is recognised that the anti-avoidance provisions could result in additional dividends tax being paid; however, this study did not aim to determine the dividends tax payable but rather to argue the tax preference of different payout methods.

Fifth limitation: Implications of double tax agreements

In investigating investor-level tax reform, the tax consequences of an investor could be influenced by a double tax agreement if the declaring company and the investor were in different countries. A reduced tax rate on dividends or a tax exemption could be applied in terms of a double tax agreement. Consideration of a double tax agreement would, however, depend on detailed information of the country of residence of the investor at the time of a distribution. The residence of an investor would then be determined with reference to the domestic tax law of each country. This study focused on listed companies characterised by large numbers of investors of different categories and countries of residence. The study did not consider the implications of double tax agreements in investigating the effect of investor-level tax reform. The detailed classification of country of residence of each investor was not considered to be practical owing to information availability and time constraints in determining the domestic tax law requirement of each of the different countries in which investors could reside.

Sixth limitation: Implications of tax reform on or after 26 February 2020

The investor-level tax reform considered in this study related to the Income Tax Act (Republic of South Africa, 2020) which included provisions effective before the date of the 2020 South African Budget Speech, being 26 February 2020. Tax reform effective on or after 26 February 2020 was accordingly excluded from the scope of this study. The minister of finance proposed a reduction in the corporate tax rate from 28% to 27% for companies with years of assessment commencing on or after 1 April

2022 as well as consideration of further rate decreases to make the South African tax system more attractive for investors (National Treasury, 2021, p. 9). The proposed reduction in the corporate income tax rate would affect the effective rate at which capital gains would be taxed and as result could impact the tax preference for different payout methods. Tax reform after 26 February 2020, including the proposed reduction in the corporate income tax rate, could serve as an avenue for further research in other studies.

4.11 ETHICAL CONSIDERATIONS

Data collected in this study were from publicly available sources – predominantly from annual financial statements; two financial databases (namely IRESS and Refinitiv Eikon); and SARS publications. As no sensitive personal information would be collected, the ethical issues relating to data collected were minimised. Ethical screening was performed by the Stellenbosch University's Research Ethics Committee and the study was designated as being exempt from ethical clearance (Appendix G).

In investigating the effect of investor-level tax reform on payout policies, the ethical issue of tax avoidance or tax evasion could arise. The effect of investor-level taxes on corporate tax avoidance has been studied (Amiram et al., 2016); however, the present study did not examine tax avoidance or tax evasion in relation to investor-level taxes and payout policies. Accordingly, the present study did not draw inferences relating to tax avoidance or tax evasion on the basis of tax effects noted – any inference or conclusion relating to tax avoidance or tax evasion was deliberately avoided.

4.12 CONCLUSION

The study employed a broad research design which is quantitative in nature and four research methods relating to each of the four research objectives. The data collection method of the study was described in detail in this chapter in order to serve as a basis for replication in future studies as well as afford an opportunity for the triangulation of evidence from further studies.

In Chapter 5 to Chapter 8 the research methods relating to each of the four research objectives, as discussed in this chapter, are employed and results and findings are discussed.

CHAPTER 5: AFTER-TAX VALUES OF DIFFERENT PAYOUT METHODS

5.1 INTRODUCTION

The first research objective of this study was pursued by calculating the after-tax values of payout methods for individuals, corporates, and institutions (represented by funds). The years of assessment of investors which relate to the 2006 to 2019 financial years of companies were considered (Figure 4.1). In Chapter 3 an overview of tax reform concluded with a theoretical argument for the increased role of taxes which is indicative of the magnitude of tax reform as a recurring theme in literature (Figure 2.2). This chapter concludes with a further theoretical argument for the increased role of taxes due to tax reform and further theoretical propositions on the effect of taxes on payout policies for investigation in other chapters. In addition to the magnitude of tax reform, ownership as a recurring theme is considered in this chapter as the calculation of after-tax values distinguished between different investors and their conflicting tax preferences.

Based on the tax-driven preferences for different payout methods, propositions about the expected effect on payout policies are submitted in this chapter as a basis for empirical research on payout policies in Chapter 6 to Chapter 8. The after-tax values and tax differentials (Equation 4.1) of different payout methods were calculated to indicate the tax preference of an investor for different types of payout methods. This chapter considers share repurchases and additional shares separately as possible substitutes for dividends. The findings of Nel (2018) in respect of share repurchases and dividends are contained in this chapter and are extended to include the 2020 year of assessment of investors and also to include additional shares as a potential substitute for dividends.

As discussed in the research method pertaining to this chapter (section 4.5.1), the tax rates at which dividends are taxed and capital gains tax were applied in the calculation of after-tax values. The capital gains tax inclusion rates and normal tax rates could be amended in South Africa during the Budget Speech in February of each year. Announced increases in the capital gains tax inclusion rate and normal tax rates are not applicable with immediate effect, but rather are applicable in respect of the tax year of assessments after the announcement date (refer to section 3.4). Reforms to the rate at which dividends are taxed, STC or dividends tax, have been noted as applying to dividends declared or paid after determined dates. For purposes of the calculation of the after-tax values, the years of assessment of investors were assumed to end at the end of February each year for meaningful comparison between the categories of investors. The tax rates in respect of February years of assessment and applicable tax reform during each period are illustrated in Table 5.1.

Table 5.1

Tax rates over a period of tax reform

Period and description	Higher-rate individuals	Lower-rate individuals	Corporates	Funds
Period A: 1 March 2006 to 30 September 2007				
Secondary tax on companies rate (t_{STC})	12.5%	12.5%	12.5%	12.5%
Effective capital gains tax rate (t_{CGT})	10.0%	4.5%	14.5%	Exempt
Period B: 1 October 2007 to 29 February 2008 [STC rate decreased from 1 October 2007]				
Secondary tax on companies rate (t_{STC})	10.0%	10.0%	10.0%	10.0%
Effective capital gains tax rate (t_{CGT})	10.0%	4.5%	14.5%	Exempt
Period C: 1 March 2008 to 31 December 2010 [Corporates normal tax rate decreased[1]]				
Secondary tax on companies rate (t_{STC})	10.0%	10.0%	10.0%	10.0%
Effective capital gains tax rate (t_{CGT})	10.0%	4.5%	14.0%	Exempt
Period D: 1 January 2011 to 29 February 2012 [Definition of dividend amended]				
Secondary tax on companies rate (t_{STC})	10.0%	10.0%	10.0%	10.0%
Effective capital gains tax rate (t_{CGT})	10.0%	4.5%	14.0%	Exempt
Period E: 1 March 2012 to 28 February 2015 [Capital gains tax rates increased and dividends tax introduced[2]]				
Dividends tax rate (t_{DT})	15.0%	15.0%	15.0%	Exempt
Effective capital gains tax rate (t_{CGT})	13.3%	5.6%	18.7%	Exempt
Period F: 1 March 2015 to 29 February 2016 [Individuals normal tax rate increased]				
Dividends tax rate (t_{DT})	15.0%	15.0%	15.0%	Exempt
Effective capital gains tax rate (t_{CGT})	13.7%	5.9%	18.7%	Exempt
Period G: 1 March 2016 to 28 February 2017 [Capital gains tax inclusion rates increased]				
Dividends tax rate (t_{DT})	15.0%	15.0%	15.0%	Exempt
Effective capital gains tax rate (t_{CGT})	16.4%	7.2%	22.4%	Exempt
Period H: 1 March 2017 to 29 February 2020 [Normal tax rate increased and dividends tax rate increased[3]]				
Dividends tax rate (t_{DT})	20.0%	20.0%	20.0%	Exempt
Effective capital gains tax rate (t_{CGT})	18.0%	7.2%	22.4%	Exempt

Note. Sourced and adapted from Nel (2018, p. 78–79).

[1] Corporate tax rate decrease commenced in years of assessment ending between 1 April 2008 and 31 March 2009 (SARS, 2009). Included from Period C as a February year of assessment is assumed (refer section 4.5.2.2).

[2] Dividends tax applied to dividends declared and paid on or after 1 April 2012 (SARS, 2019, p. 5) and included Period E as applicable since the 2013 year of assessment. STC applied until 31 March 2012 (one month during the 2013 year of assessment) and was ignored in the calculation of after-tax values for Period E to account for the differential of dividends tax and capital gains tax which would have applied for 11 months of the 2013 year of assessment.

[3] Dividends tax rate increase applied to dividends paid on or after 22 February 2017 (SARS, 2019, p. 55) and was included under Period H, as only a marginal overlap of six days with Period G existed.

Table 5.1 illustrate increases in applicable tax rates over the period of tax reform and these tax rates were employed to calculate after-tax values of different payout methods. This chapter expands on existing literature in two respects. Firstly, it covers the first South African study to provide evidence of the tax preference of different categories of investors for different payout methods. Secondly, it provides evidence of the conflicting tax preferences of investors. This serves as a basis for the formulation of propositions of a tax effect on payout policies of companies. This chapter proceeds with an investigation of after-tax values of share purchases and dividends, whereafter additional shares and dividends are investigated.

5.2 SHARE REPURCHASES AS SUBSTITUTE FOR DIVIDENDS

Alzahrani and Lasfer (2012) submitted that in a country with strong investor protection, managers could maximise the after-tax returns of investors by substituting cash dividends with share repurchases owing to the tax cost of dividends exceeding the benefit of reducing the agency cost. In South Africa, investor activists who hold even nominal stakes in companies are afforded relatively strong rights and protections (Davids & Kitcat, 2019, p. 135). The South African literature specifically addressing the possible tax motivations for share repurchases and tax reform under the STC regime and the dividends tax regime is provided, followed by the calculation of the respective after-tax values of share repurchases and dividends.

5.2.1 Share repurchases under the secondary tax on companies regime

Bester (2008) performed an analysis of the investor distribution activities of industrial companies listed on the JSE. Bester (2008) submitted – on the basis of interpretation rather than empirical analysis – that tax implications (whether STC could be avoided or not) and share price valuation remained the dominant determinants of shareholders' distribution choice between dividends and share repurchases. Dividends distributed from share premiums (capital distributions) were noted as the favourite distribution method over the target period as these distributions did not result in STC consequences (Bester, 2008). Share repurchases were indicated as having a diminutive STC advantage over cash dividends (Bester, 2008). The effective rate of capital gains has increased notably since Bester's (2008) study, which could contribute to different findings in the current tax environment. Two other studies also included tax as a consideration in their survey among managers and directors in investigating determinants of dividends or share repurchases. Chivaka et al. (2009) did not acknowledge tax efficiencies (the fact that dividends were taxed differently from share repurchases) as a reason for share buy-backs of listed companies, based on their survey among directors. Firer et al. (2008) performed a survey among managers to ascertain which factors affect dividend policy and argued that taxes do not rank uppermost in the minds of management when they contemplate

dividend policy. However, Firer et al. (2008) qualified their findings by recognising that investors themselves were not liable for any dividends tax at that time, and as a result, only a limited number of questions on the survey addressed the issue of the impact of tax on the dividend decision. Chivaka et al. (2009) and Firer et al. (2008) focused on the supply side (from the managers' perspective) of the distribution and not on the demand side (from the investors' perspective). The effectiveness of using a survey among managers or directors in determining the role of taxes could also be questioned owing to a misalignment of interests between managers or directors and SARS. A company or investor generally has the desire to pay as little tax as possible within the constraints of tax law, whereas SARS wishes to maximise tax collection, and by publicly stating the preference for a specific distribution choice as tax efficiency, companies may prompt SARS to investigate the treatment of repurchases by both the company and the respective investors for tax purposes (Chivaka et al., 2009).

Wesson and Hamman (2012) examined the repurchase by the holding company of treasury shares held by subsidiaries to ascertain whether repurchasing was a regular transaction conducted by listed companies and to discover the stated motivations for these repurchases. The tax motivation for the repurchase of shares by a holding company through a subsidiary was submitted as an important motivation. Subsequent to the target period considered in the study by Wesson and Hamman (2012), reforms introduced during 2009 in respect of treasury shares not only broadened the base of taxable dividends but also removed opportunities for perceived tax avoidance schemes. The tax treatment of repurchases from subsidiaries would since tax reform be the same as for other specific repurchases not from subsidiaries under the STC regime as well as the dividends tax regime is discussed in the section which follows.

5.2.2 Share repurchases under the dividends tax regime

The general repurchase (or open-market repurchase) of shares does not constitute a dividend as defined since the 2011 reform, but it is treated as a disposal for the investor for capital gains tax purposes and the full consideration received represents proceeds in respect of such disposal. The specific repurchase of shares does constitute a dividend as defined since the 2011 reform to the extent that the distribution exceeds the amount of CTC returned to the investor. To the extent that the distribution is not a dividend, it would constitute a disposal for the investor for capital gains tax purposes and would thus require a necessary split of the consideration between the dividend and non-dividend elements (Table 3.1).

Venter (2014) investigated the possible impact of the introduction of dividends tax on investors based on an analysis of legislation and a case study. The case study of Venter (2014) involved a calculation

of the after-tax value of a dividend for different classes of investors (resident company, resident natural person, and non-resident company including consideration of a double tax agreement). Venter (2014) concluded that foreign investors were likely to benefit from the introduction of dividends tax and that the position of a foreign investor was recognised as complex owing to the double tax agreement between different countries. Venter (2014) ignored share repurchases and thus did not consider a choice between dividends and share repurchases – in respect of which the present study adds to the literature. Other South African studies were also performed under the dividends tax regime but also excluded share repurchases in their analysis of dividend growth or payout ratios (Badenhorst, 2017; Montgomery, 2015). Based on current South African literature, the importance of tax in a decision between share repurchases and dividends has been understated. Owing to consecutive increases in the rate of capital gains tax and the distinction between a general and specific repurchase since 2011, in anticipation of dividends tax, the role of taxes is expected to increase and merits investigation.

5.2.3 Basis for after-tax values calculation of share repurchases and dividends

The calculation of after-tax values departs from a scenario of a company with only one investor considering one of two possible distributions: R100 as a cash dividend or R100 as a share repurchase (i.e. as a general repurchase or a specific repurchase). The share repurchase would represent a R20 return of capital (or nominal value for STC) to the investor, which also represents the base cost of the shares repurchased for the investor. For ease of reference, and to avoid unnecessary repetition, Table 5.2 is provided as a basis for calculations and discussions in respect of a choice between a dividend and a share repurchase.

Table 5.2

Basis for calculation of nominal after-tax values of share repurchases

Description	Dividend	Share repurchase
Dividend	100	80
Return of capital	-	20
Total distribution	**100**	**100**

Note. Sourced and adapted from Nel (2018).

The distribution size (R100) and the return of capital (R20) are applied in the calculation to correspond with the calculations performed by Geiler and Renneboog (2015) in their UK study. The value of accepting the same distribution size and the return of capital is that the after-tax values of this study

could then be compared to the after-tax values of Geiler and Renneboog (2015) in a cross-country comparison in future research. Furthermore, in terms of the Income Tax Act, the distribution of a dividend may also have a capital component in the form of a reduction of CTC, which would be considered for capital gains tax purposes. As the objective of this section was to investigate the changes in preference for dividends and shares repurchases, the term dividend as defined in the Income Tax Act was applied and did not include a capital element (any reduction in CTC). The after-tax values of dividends, according to Geiler and Renneboog (2015), also did not include a capital element, which again affords the opportunity for comparison of after-tax values in future research endeavours. The assumptions applied in respect of the calculation of after-tax values are detailed in the research method of this study (section 4.5.2.2).

In order to quantify the magnitude of changes in after-tax values over the different periods, a tax differential was calculated for each period (Equation 4.1). The tax differential shows in percentages the difference between the option with the highest after-tax value and the option with the lowest after-tax value. The detailed calculations of after-tax values are provided in the sections which follow for Period A to Period H. The calculated after-tax values and tax differentials based on detailed calculations and tax rates (included in Table 5.1) are then provided.

5.2.4 Period A to Period C: 1 March 2006 to 31 December 2010

5.2.4.1 Cash dividend

An individual, corporate, and fund investor would have received a dividend of R100 (after deducting STC), with net dividend calculated as [Div / $(1 + t_{STC})$], which represented the after-tax value.

In addition, a corporate investor would have received a net dividend similar to other investors; however, the corporate investor would then be entitled to an STC credit in respect of the dividend received, which would not be allowed to other investors. In respect of a corporate investor, the after-tax value would be the net dividend received but it would be increased to include the benefit of an STC credit in respect of the dividend so received. The STC credit would be the net dividend accrued [Div / $(1 + t_{STC})$] multiplied by the tax fraction of STC [t_{STC} / $(1 + t_{STC})$], which could be simplified as [(Div x t_{STC}) / $(1 + t_{STC})^2$]. The calculation of the STC credit for a corporate investor would be based on the net dividend received in terms of section 64B(3) of the Income Tax Act (Republic of South Africa, 2020), prior to the 2011 reforms. The net amount of any dividend would be the amount by which the dividend declared by a company exceeded the sum of any dividends that had accrued to that company during a dividend cycle.

Under the STC regime, the amount accrued to a corporate investor would be the net dividend (after deducting STC) that the investor would be entitled to receive. The after-tax value for a corporate investor would be the net dividend plus the STC credit; being [Div / (1 + t_{STC})] + [(Div x t_{STC}) / (1 + t_{STC})^2].

5.2.4.2 Share repurchase

An individual, corporate, and fund investor would have received a distribution of R100 subjected to STC on the dividends portion of R80 (amount which exceeds nominal value). The net dividend after deduction of STC would be calculated as [R80 / (1 + t_{STC})]. The investor would also be liable for capital gains tax on the R20 return of capital less the initial investment of R20 at the applicable effective rate of capital gains tax; being [R0 x t_{CGT}].

A share repurchase would also constitute the transfer of a security and be subjected to a security transfer tax at a rate of 0.25% of the value at which the security was transferred in terms of section 2 of the Security Transfer Tax Act (Republic of South Africa, 2007); being [R100 x 0.25%]. The Security Transfer Tax Act (Republic of South Africa, 2007) replaced the Stamp Duties Act of 1968, both resulting in a levy at the same rate in respect of share repurchases. The liability for security transfer tax would also vest in the investor in the case of a listed security. The after-tax value of a R100 share repurchase could be summarised as follows: R100 – [R80 x (t_{STC} / (1 + t_{STC}))] – [R0 x t_{CGT}] – [R100 x 0.25%].

In addition, a corporate investor would then be entitled to an STC credit in respect of the dividend received, which would not be allowed to other investors. For a corporate investor, the after-tax value would be the net dividend received increased to include the benefit of an STC credit in respect of the dividend so received; as follows: R100 – [R80 x (t_{STC} / (1 + t_{STC}))] – [R0 x t_{CGT}] + [(Div x t_{STC}) / (1 + t_{STC})^2] – [R100 x 0.25%].

A fund investor would also have received a distribution of R100 subjected to STC on the dividends portion of R80 (amount which exceeds nominal value). A fund investor would also be liable for security transfer tax. Only the transfer from one pension fund to another pension fund is exempt from security transfer tax in terms of section 4(1)(c) of the Security Transfer Tax Act (Republic of South Africa, 2007). A fund investor would, however, be exempt from capital gains tax in respect of the R20 return of capital. Consequently, the after-tax value of a R100 share repurchase can be summarised as follows: R100 – [R80 x (t_{STC} / (1 + t_{STC}))] – [R100 x 0.25%].

5.2.5 Period D: 1 January 2011 to 29 February 2012

From 1 January 2011, the reform of the definition of dividend necessitated a distinction between a general share repurchase and a specific share repurchase. The distinction of importance is the exclusion of a general repurchase as dividend as defined.

5.2.5.1 Cash dividend

The investor would have received a dividend of R100 (after deducting STC), with the net dividend calculated as [Div / (1 + t_{STC})], which represents the after-tax value of receiving a dividend.

5.2.5.2 General share repurchase

A general repurchase would not constitute a dividend as defined or a return of capital as defined in the Income Tax Act (Republic of South Africa, 2020). A general repurchase would, however, still be regarded as a disposal by the investor in terms of the general capital gains tax provisions. An investor would not be subjected to STC on the portion exceeding the nominal value but would be liable for capital gains tax on the R100 distribution less the initial investment of R20 at the applicable effective rate of capital gains tax; being [R80 x t_{CGT}]. The share repurchase would also constitute the transfer of a security and be subjected to security transfer tax at a rate of 0.25% of the value at which the security is transferred in terms of section 2 of the Security Transfer Tax Act (Republic of South Africa, 2007); being [R100 x 0.25%]. The after-tax value of a R100 general share repurchase for an individual and corporate investor is calculated as follows: R100 – [R80 x t_{CGT}] – [R100 x 0.25%]. A corporate investor would in respect of a general repurchase thus not have the benefit of an STC credit in respect of a distribution exceeding nominal value as the distribution is not a dividend as defined.

A funds investor would be exempt from capital gains tax on the distribution of R100 but would still be liable for the security transfer tax. Thus, the after-tax value of a R100 general share repurchase for a fund investor can be summarised as follows: R100 – [R100 x 0.25%].

5.2.5.3 Specific share repurchase

Only a general repurchase was affected by the reform of dividend as defined during 2011. A specific repurchase would follow the same calculation for Periods A to C in respect of share repurchases.

5.2.6 Period E to Period H: 1 March 2012 to 29 February 2020

The introduction of dividends tax at investor level and consecutive increases in applicable tax rates occurred during Period E to Period H.

5.2.6.1 Cash dividend

An individual investor would have received a dividend of R100 (after deducting dividends tax), with net dividend calculated as [Div x (1 - t_{DT})], which represents the after-tax value of receiving a dividend. A corporate investor and a fund investor would be exempt from dividends tax if a declaration were submitted to the company by such an investor indicating the applicable exemption in terms of section 64F of the Income Tax Act (Republic of South Africa, 2020). A corporate investor and a fund investor would, owing to the exemption, not receive a net dividend but the gross dividend of R100.

5.2.6.2 General share repurchase

A general repurchase would not constitute a dividend as defined and consequently an investor would not be subjected to dividends tax. A corporate investor and a fund investor would not have the benefit of the exemption afforded in section 64F of the Income Tax Act (Republic of South Africa, 2020). A general repurchase would, however, still constitute a disposal and the investor, as a consequence, would be liable for capital gains tax on the R100 distribution less the initial investment of R20 at the applicable effective rate of capital gains tax; being [R80 x t_{CGT}]. The share repurchase would also constitute the transfer of a security and be subjected to security transfer tax at a rate of 0.25% of the value at which the security is transferred; being [R100 x 0.25%]. The after-tax value of a R100 general share repurchase is calculated as follows: R100 – [R80 x t_{CGT}] – [R100 x 0.25%].

5.2.6.3 Specific share repurchase

An individual investor would receive a distribution of R100 and would be subjected to dividends tax on the dividends portion of R80 at the applicable rate of dividends tax; being [R80 x t_{DT}]. The investor would be liable for capital gains tax on the R20 return of capital less the initial investment of R20 at the applicable effective rate of capital gains tax; being [R0 x t_{CGT}]. The share repurchase would also constitute the transfer of a security and be subjected to security transfer tax at a rate of 0.25% of the value at which the security is transferred in terms of section 2 of the Security Transfer Tax Act (Republic of South Africa, 2007); being [R100 x 0.25%]. The after-tax value of a R100 specific share repurchase for an individual investor can be summarised as follows: R100 – [R80 x t_{DT}] – [R0 x t_{CGT}] – [R100 x 0.25%].

A corporate investor would also have received a distribution of R100 which is not subjected to dividends tax as a result of the exemption afforded in section 64F of the Income Tax Act (Republic of

South Africa, 2020). A corporate investor would only be liable for capital gains tax on the R20 return of capital less the initial investment of R20 at the applicable effective rate of capital gains tax; being [R0 x t_{CGT}]. The after-tax value of a R100 specific share repurchase for a corporate investor can be summarised as follows: R100 – [R0 x t_{CGT}] – [R100 x 0.25%].

A funds investor would also have received a distribution of R100 but would not be subjected to dividends tax as a result of the exemption afforded in section 64F of the Income Tax Act (Republic of South Africa, 2020). A fund investor would also be exempt from capital gains tax in terms of paragraph 63 of the Eighth Schedule to the Income Tax Act (Republic of South Africa, 2020). A fund investor would, however, be liable for the security transfer tax. Consequently, the after-tax value of a R100 specific share repurchase for a fund investor would be calculated as follows: R100 – [R100 x 0.25%].

5.2.7 After-tax values of share repurchases and dividends

Based on the description in the preceding sections and the applicable tax rates (Table 5.1), the calculated after-tax values and tax differentials (Equation 4.1) are provided in Table 5.3.

A higher-rate individual investor would have had a preference for share repurchases over cash dividends during all periods considered; however, the investor would have a preference for different types of share repurchases since the introduction of dividends tax. Specific repurchases would result in the highest after-tax values in Period D and Period G. General repurchases would result in the highest after-tax values in Period E, Period F, and Period H. A lower-rate individual investor would also have selected a share repurchase over a cash dividend with a preference for a general repurchase over a specific repurchase during all periods considered.

A corporate investor would have preferred a cash dividend during all the periods considered. The increases in the effective tax rates of a corporate investor would also result in the preference for a specific repurchase instead of a general repurchase since Period D. A general repurchase would have the lowest after-tax value since Period D for a corporate investor due to no exemption from dividends tax being afforded and a general repurchase being subject to capital gains tax. The preference for a specific repurchase over a general repurchase for a corporate investor further increased as a result of increases in the capital gains tax inclusion rate since Period E.

A fund investor would have had an apparent preference for share repurchases under the STC regime with a notable preference for a general repurchase during the transitional period, Period D. A fund investor would be in a tax-indifferent position since the introduction of dividends tax in Period E with only security transfer tax being payable in respect of a share repurchase.

Table 5.3

After-tax values and tax differentials - Share repurchases and dividends

Period and description	Higher-rate individuals	Lower-rate individuals	Corporates	Funds
Period A: 1 March 2006 to 30 September 2007 [STC rate of 12.5%]				
Dividend	88.89	88.89	98.77	88.89
Share repurchase	90.86	90.86	98.76	90.86
Tax differential	2.2%	2.2%	0.0%	2.2%
Period B: 1 October 2007 to 29 February 2008 [STC rate of 10%]				
Dividend	90.91	90.91	99.17	90.91
Share repurchase	92.48	92.48	99.09	92.48
Tax differential	1.7%	1.7%	0.1%	1.7%
Period C: 1 March 2008 to 31 December 2010 [STC rate of 10%]				
Dividend	90.91	90.91	99.17	90.91
Share repurchase	92.48	92.48	99.09	92.48
Tax differential	1.7%	1.7%	0.1%	1.7%
Period D: 1 January 2011 to 29 February 2012 [STC rate of 10%]				
Dividend	90.91	90.91	99.17	90.91
General repurchase	91.75	96.15	88.55	99.75
Specific repurchase	92.48	92.48	99.09	92.48
Tax differential	1.7%	5.5%	10.7%	8.9%
Period E: 1 March 2012 to 28 February 2015 [dividends tax rate of 15%]				
Dividend	85.00	85.00	100.00	100.00
General repurchase	89.09	94.95	84.83	99.75
Specific repurchase	87.75	87.75	99.75	99.75
Tax differential	4.6%	10.5%	15.2%	0.3%
Period F: 1 March 2015 to 29 February 2016 [dividends tax rate of 15%]				
Dividend	85.00	85.00	100.00	100.00
General repurchase	88.83	94.95	84.83	99.75
Specific repurchase	87.75	87.75	99.75	99.75
Tax differential	4.3%	10.5%	15.2%	0.3%
Period G: 1 March 2016 to 28 February 2017 [dividends tax rate of 15%]				
Dividend	85.00	85.00	100.00	100.00
General repurchase	86.63	93.99	81.83	99.75
Specific repurchase	87.75	87.75	99.75	99.75
Tax differential	3.1%	9.6%	18.2%	0.3%

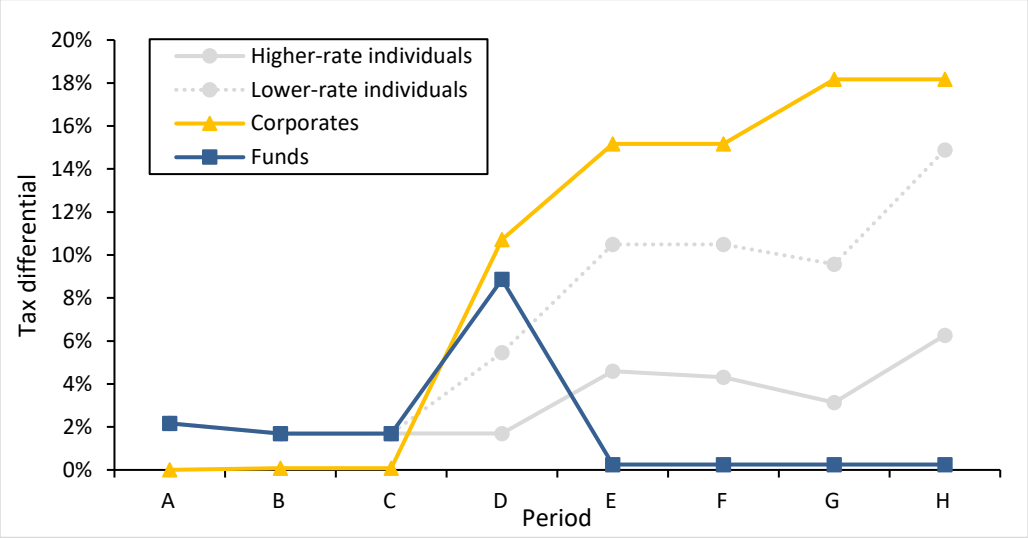
Period and description	Higher-rate individuals	Lower-rate individuals	Corporates	Funds
Period H: 1 March 2017 to 29 February 2020 [dividends tax rate of 20% from 22 February 2017]				
Dividend	80.00	80.00	100.00	100.00
General repurchase	85.35	93.99	81.83	99.75
Specific repurchase	83.75	83.75	99.75	99.75
Tax differential	6.3%	14.9%	18.2%	0.3%

Note. Adapted from Nel (2018). The table depicts the after-tax value of R100 distributed as different payout methods. The tax differential represents the percentage difference between the highest after-tax value and the lowest after-tax value for each investor category during each period. The payout method with the highest value per investor category per period is also highlighted for emphasis.

The trend in tax differentials over the period of tax reform, as derived from Table 3.5, is illustrated in Figure 5.1.

Figure 5.1

Tax differentials - Share repurchases and dividends



Note. Adapted from Nel (2018).

Prior to the reform of dividend, as defined (Periods A to Period C), lower tax differentials were indicated, which support the existing literature in respect of these periods, which understated the role of taxes in choices between dividends and share repurchases. The tax differentials between the different categories of investors were also not as disbursed, as was the case from Period D. Individuals and fund investors would have preferred a share repurchase over a dividend during Periods A to Period D, which would be in line with the literature covering these periods, which also suggests that a lower capital gains tax rate would favour a share repurchase over a dividend. The low tax differential

for all categories of investors during this period (ranging from 0% to 2.2%) would, however, not merit the argument of a tax-driven preference for any of the two payout methods. Since the reform of dividend, as defined (Period D), higher tax differentials were indicated than during the periods prior to the reform. The conflicting preference of a corporate investor and a fund investor compared to an individual investor was also evident since the introduction of dividends tax. The increased tax differential further suggested certain tax-driven preferences since Period D and is submitted by the researcher as an indication of the increased role of taxes as a result of this reform.

For higher-rate individuals, the tax differentials increased more than two-fold as a consequence of the introduction of dividends tax, and also increased notably as a result of the most recent tax reform in Period H. For lower-rate individuals, the tax differentials also increased notably since the introduction of dividends tax, which is indicative of the benefit of a general repurchase not being subjected to dividends tax but rather to lower normal tax rates as capital gains tax. The preference of lower-rate individuals for general or specific repurchases is submitted as marginal owing to a tax differential of less than one percent.

A corporate investor is submitted as being most affected by the reform of dividend, as defined, on 1 January 2011, based on the highest calculated tax differentials. For a corporate investor, a general repurchase since 2011 would result in the lowest after-tax value which, in combination with higher tax differentials, is submitted as the least preferred payout method since 2011. The reform of dividend, as defined on 1 January 2011, excluded a general repurchase from the scope of dividends tax and subjected the repurchase to capital gains tax instead of dividends tax. The exclusion of a general repurchase from the scope of dividends tax from the outset would be to the disadvantage of a corporate investor who would not be able to use the dividends tax exemption afforded for the dividend portion of a distribution. The submission of the researcher is that a corporate investor would have preferred a cash dividend or specific repurchase over a general repurchase since 2011.

For a fund investor, a notable increase in the tax differentials during Period D was attributable to the transition from STC to dividends tax. During the transitional period, a general repurchase would not be regarded as a dividend and would not be subjected to STC, whereas a specific repurchase would still have been regarded as a dividend subject to STC being withheld by the repurchasing company. A tax preference for a general repurchase over a specific repurchase during the transitional period, Period D, is submitted by the researcher. Fund investors would have been in a tax-indifferent position since the introduction of dividends tax from Period E onwards. In a tax-indifferent position, the dividend preference of institutional investors, which includes funds, would be accepted.

In conclusion, the differential between dividends tax and capital gains tax in the context of dividends and share repurchases would affect the after-tax values of corporate investors the most. This chapter proceeds by investigating the after-tax values of additional shares and dividends.

5.3 ADDITIONAL SHARES AS A SUBSTITUTE FOR DIVIDENDS

Modigliani and Miller (1958) argued that the value of a levered company is greater than that of another otherwise identical unlevered company because of the favourable tax treatment of the interest expense. The value of a business will increase through the tax saving created by debt-funded assets (Van der Merwe, 2016). Juxtaposed, the issue of additional shares will reduce the company's leverage ratio and per-share interest tax shield, resulting in a decrease in the company's market value and a less tax-efficient capital structure (Bhana, 1998). Issuing additional shares could accordingly be less tax efficient from a capital structure perspective if compared to debt. A capitalisation issue could also be argued to be a superficial manoeuvre and does not create wealth for an investor and would not affect the value of a company (Correia et al., 2015). Despite the possible impact on the capital structure of a company, issuing additional shares have been noted as a payout method instead of cash dividends (Lasfer, 1997) or as possible substitute for special dividends (Oswald & Young, 2008; Wesson, 2015). An investor could obtain additional shares in a company by different means, such as a capitalisation issue, scrip dividend, in terms of a DRIP, or a rights issue.

A capitalisation issue would entail an investor receiving additional shares without an option to elect a cash dividend instead of the additional shares. A scrip option provides investors with the option to elect cash instead of the additional share (the scrip dividend). There must always be an election in a scrip dividend, otherwise the default would be classification as a capitalisation issue (JSE, 2016). Allowing investors to choose between cash dividends and the equivalent number of new shares instead of cash could also be perceived by investors more positively than merely reducing dividends (David & Ginglinger, 2016). As an incentive for investors to elect the scrip option, the value of the share option based on share price would typically be more than the cash offer (Oosthuizen, 2009, p. 3). As a result of the uncanny similarities between a capitalisation share and a scrip dividend, it has even been suggested that there is no longer such a thing as a scrip dividend (STRATE, 2012, p. 8). Both a capitalisation share and a scrip dividend result in the investor receiving additional shares, with only a scrip dividend including the option to elect a cash distribution instead of additional shares. From a tax perspective, a capitalisation share or scrip dividend in which shares are elected is excluded from the definition of dividend as a distribution of the company's own shares (Figure 3.1). Accordingly, such an issue of additional shares is not subjected to dividends tax but is considered for capital gains tax consequences on eventual disposal if held with a capital intent by an investor. Based on the similar

tax treatment, capitalisation share and scrip dividend would also be grouped in the calculation of after-tax values.

From the point of view of an investor, a DRIP share might on face value seem similar to a capitalisation share (or scrip dividend) but there are key differences from a practical and a tax perspective. From a practical perspective, a DRIP does not automatically retain cash within the company as a cash dividend is declared with the option to be reinvested in shares. Cash would consequently only be retained if reinvested by the investor in terms of the DRIP. If dividends are reinvested, a DRIP agent acquires further shares on behalf of the investor utilising the net dividend, after relevant taxes, to which the investor is entitled (STRATE, 2012). As opposed to a capitalisation share, a DRIP could also result in dealing costs (brokerage fees) and the number of shares an investor gets depends on the price on the day on which the DRIP agent acquires such shares (JSE, 2016). The advantage to a declaring company utilising a DRIP is that it enables a company to retain capital in respect of investors that opt for a DRIP share instead of cash (Correia et al., 2015). A possible drawback of a DRIP is the fact that all investors pay for the implementation and administrative costs of a DRIP initiative, but only the participants receive the benefit, resulting in non-participants subsidising the investors who participate in the DRIP (Abraham et al., 2015). Another perceived drawback is the potential dilution of the earnings per share caused by an expanding equity base. Abraham et al. (2015) found evidence that companies in Australia that utilise a DRIP have higher dividend payout ratios, are larger in size, and have lower growth prospects compared to non-DRIP companies. Furthermore, companies were more likely to utilise a DRIP subsequent to reforms to Australia's tax system in July 2000, which enabled Australian tax-resident investors to redeem for cash the value of any surplus franking credits distributed to investors. Despite the tax explanation, Abraham et al. (2015) found, contrary to their expectations, no evidence that dividend taxation explains participation rates in a DRIP. In the South African context, no consideration of the role of taxes in utilising DRIPs has been given in the literature surveyed. From a tax perspective a DRIP share is still regarded as a cash dividend declared, contrary to a capitalisation (or scrip dividend) and the subsequent reinvestment is regarded as a separate event.

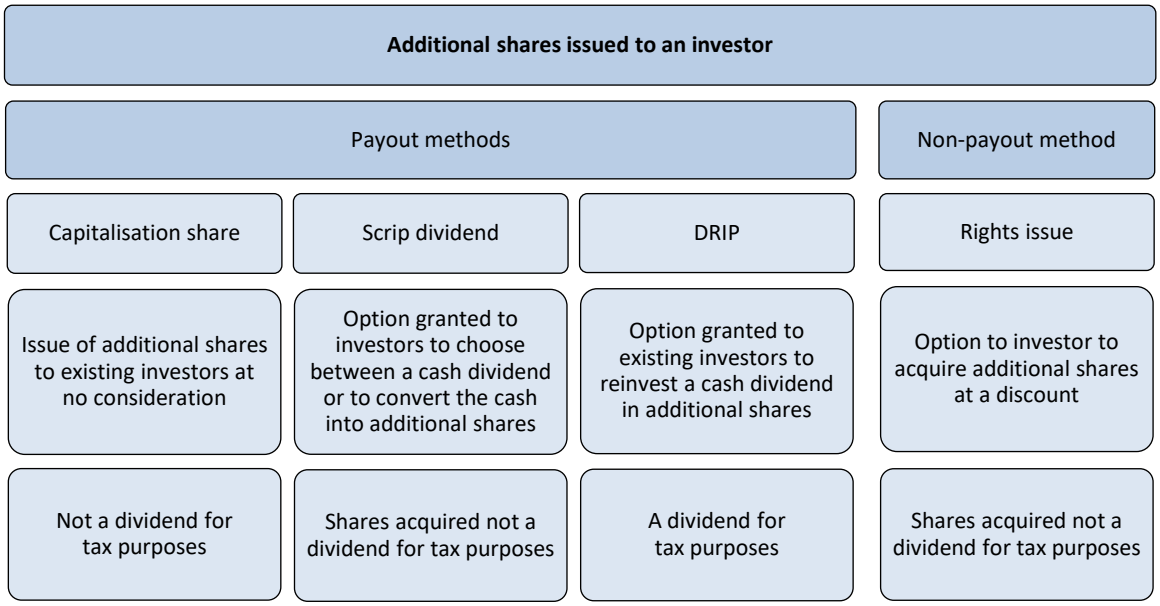
A rights issue (or nil-paid letter) is another method by which a cash-strapped company could enable investors to acquire additional shares. In a rights issue, a company grants an option to existing investors to acquire shares at a discount (below current market price). The discount received by an investor could then be regarded as a benefit received by an investor, however, the primary motive of a rights issue is not to distribute value to an investor but rather to raise capital for a company. The discount received by an investor serves as compensation for the possible dilution of an investor's existing shareholding pending shares which might be issued in terms of the rights issue. In addition, a

rights issue is characterised as a source of finance (Correia et al., 2015, p. 13–9) and not as a means of distributing value to investors. A rights issue is, consequently, not argued as a payout method and is excluded for consideration of after-tax values in this section.

In summary, the different means by which an investor could obtain additional shares in a company, including tax consequences, are illustrated in Figure 5.2.

Figure 5.2

Additional shares issued to investors



The payout methods through which additional shares are issued to investors (capitalisation shares, scrip dividends, and DRIP) could result in different tax consequences for investors (Figure 5.2). Knowledge and understanding of the different tax consequences could inform decisions between payout methods to maximise the after-tax return of different investors. Tax reform over different periods, in turn, results in changes in the tax consequences for different investors and could result in a change in tax-driven preferences for the different payout methods. The contribution of this section is to provide evidence of any tax-driven preferences for a cash dividend and additional shares over a period of tax reform in South Africa. As starting point, an overview of literature relating to the tax reform under the STC regime and dividends tax regime is provided, which is then applied as the basis for the calculation of after-tax values.

5.3.1 Additional shares under the secondary tax on companies regime

Since the introduction of STC, a number of companies have examined alternative methods of rewarding investors, other than dividends, with the primary motivation often being to eliminate or reduce the liability for STC (Price Waterhouse Meyernel, 1994). The rate of STC was subsequently reduced to 10%, before being replaced by dividends tax, and such a reduction in the rate could have contributed to a decline in the popularity of scrip dividends or capitalisation issues instead of cash dividends. SARS (2010) noted that the practice of issuing capitalisation shares has become less popular and there has been a move back to declaring cash dividends for the following possible reasons:

- The preference of investors for cash dividends above a small number of capitalisation shares
- The administrative burden when scrip dividends are offered to investors
- The contingent liability for STC which arises when capitalisation shares are issued

Prior to 1 January 2011, the nominal value of a capitalisation share was included in paragraph (b) of dividend as defined in section 1 of the Income Tax Act at the time, but with two specific exclusions (SARS, 2010). The first exclusion was the nominal value of capitalisation shares paid out of share premium (SARS, 2010). The second exclusion was the nominal value of equity capitalisation shares (SARS, 2010). Consequently, only equity capitalisation shares were not regarded as a dividend, resulting in non-equity shares (for example, preference shares limited in their participation in profits) still constituting a dividend. A capitalisation share acquired before 1 October 2001 would have had a base cost of the market value on 1 October 2001 (SARS, 2014). A capitalisation share acquired on or after 1 October 2001 would have a base cost of nil rand incurred in terms of section 40C of the Income Tax Act (Republic of South Africa, 2020).

Section 40C of the Income Tax Act was inserted during 2008 and determines that capitalisation shares will have an expenditure of nil for the investors for purposes of determining the cost of such shares for normal tax purposes. If the shares are held as a capital asset (or if the provisions of section 9C of the Income Tax Act apply), the capital gains tax consequences for an investor would be initiated on disposal of such shares and would not have immediate consequences in the year that the capitalisation shares are acquired and not disposed of. On eventual disposal, the investor would have a base cost of nil and would consequently be taxed on the full proceeds. In respect of shares held as trading stock (and where provisions of section 9C of the Income Tax Act do not apply), the expenditure incurred would be deemed to be nil and the trading stock would be carried at no value until disposal occurs. Prior to 1 January 2011, a DRIP share would have remained a dividend regardless of the fact that a share was issued instead of cash. The amount available for reinvestment in terms of a DRIP would be the net amount after the necessary taxes have been deducted (STRATE, 2012, p. 8). The cost

price of the shares acquired in terms of a DRIP would be based on the net dividend received, after deducting the applicable STC. As DRIP shares are acquired at a consideration, the investor is not deemed to have acquired the shares at no consideration in terms of section 40C of the Income Tax Act (Republic of South Africa, 2020).

In addition to the normal tax consequences referred to above, the issue of additional shares could also constitute the 'transfer' of a security and is subject to security transfer tax in terms of section 2 of the Security Transfer Tax Act (Republic of South Africa, 2007). For the purposes of the present study, it would be assumed that additional shares are 'issued' by the declaring company in the primary market and consequently would not be a 'transfer' of a security, which is subjected to security transfer tax.

Olivier et al. (2004) proposed a set of metrics for the disclosure of scrip dividends in South Africa. However, as a result of the persistent lack of proper disclosure and collating of data regarding scrip dividends, the literature on scrip dividends is still sparse (Oosthuizen, 2009). There is evidence that a large number of listed South African companies were involved in scrip dividends during the period 1999 to 2009 and such scrip dividends also presented as STC-effective (Oosthuizen, 2009:3). Lasfer (1997) tested the hypothesis that scrip dividends are motivated, inter alia, by tax savings in the UK, where the imputation system resulted in tax credit which could be claimed by all investors on cash dividends. Lasfer (1997) submitted that a scrip dividend option is perceived to be motivated by tax savings and not by a cash shortage in the UK. Oosthuizen (2009) claims scrip dividends as STC-effective in the South African context; however, no literature could be identified on whether a scrip dividend would also be effective under the dividends tax regime in South Africa.

5.3.2 Additional shares under the dividends tax regime

Pending the introduction of dividends tax, the dividend definition was amended, effective 1 January 2011. As of 1 January 2011, the transfer by a company of its own shares is excluded as dividend in terms of paragraph (ii) of the dividend definition (as detailed in section 3.2.2). Owing to the liability of dividends tax being dependent on the classification of the investor, the shift from a company-level to an investor-level tax could be affected by the classification of each individual investor. Regarding the transition from STC to dividends tax, Marcus and Toerien (2014, p. 100) submitted, for the first time, the possibility of dividend tax arbitrage in the South African context, arising as certain investors are exempt from dividends tax in terms of the new legislation or where investors are taxed at different rates. Investors are afforded exemption under the dividends tax regime in terms of their classification, and the application of section 64F of the Income Tax Act (Republic of South Africa, 2020), which was not possible under the STC regime. A corporate investor

(or company) would be exempt from dividends tax in terms of section 64F(1)(f) of the Income Tax Act (Republic of South Africa, 2020) but would also have been exempt indirectly under the STC regime, either by utilising dividends received in calculating their own STC liability or by the group exemption afforded to them under the STC regime.

In respect of issuing additional shares, the transfer by a company of its own shares is excluded as dividend and as a general rule is not subjected to dividends tax. The only conceivable instance where an issue of capitalisation shares would be subjected to dividends tax is if the shares issued were funded from tainted capital (profits of an income nature) and subsequently repurchased. Save for the case of tainted capital, a capitalisation share would not be subjected to dividends tax but considered for normal tax or capital gains tax consequences.

5.3.3 Basis for after-tax values calculation of additional shares and dividends

The calculation of after-tax values also departs from a scenario of a company with only one investor. The company would consider a R100 distribution as cash dividend or additional shares (being equity shares contemplated in the Income Tax Act) instead of a cash dividend. The additional shares could be issued as a capitalisation share (or scrip dividend) or a DRIP share. The company could as a result consider one of three possible distributions: R100 as cash dividend, R100 capitalisation share (or scrip dividend), or R100 in terms of a DRIP. The assumptions applied in respect of the calculation of after-tax values are detailed in the research method of this study (section 4.5.2.2).

The detailed calculations of after-tax values are provided in the sections which follow for Period A to Period H. The calculated after-tax values and tax differentials based on detailed calculations and tax rates (included in Table 5.1) are then provided.

5.3.4 Period A to Period C: 1 March 2007 to 31 December 2010

5.3.4.1 Cash dividend

An investor would have received a dividend of R100 (after deducting STC), with a net dividend calculated as [R100 / (1 + t_{STC})], which represents the after-tax value of receiving a cash dividend. The calculation of after-tax values of cash dividends under the STC regime is detailed under section 5.2.4.1.

5.3.4.2 Capitalisation share or scrip dividend

The issue of an equity capitalisation share is not regarded as a dividend and is consequently not subject to STC. A corporate investor would have forfeited the benefit of an STC credit as the receipt of an equity capitalisation share would not constitute a dividend. Being regarded as capital in nature, the

capitalisation share would result in capital gains tax on eventual disposal and be deemed to have an initial acquisition cost of nil rand in terms of section 40C of the Income Tax Act (Republic of South Africa, 2020). The capital gains tax realised on the eventual disposal would therefore be the full proceeds of R100 less the base cost of nil rand. The after-tax value of a R100 capitalisation share (or scrip dividend) for an individual and corporate investor can be summarised as: R100 – [R100 x t_{CGT}].

A fund investor would receive the capitalisation share (or scrip dividend) and be exempt from capital gains tax in terms of paragraph 63 of the Eighth Schedule to the Income Tax Act (Republic of South Africa, 2020). The after-tax value of a R100 capitalisation share (or scrip dividend) for a fund investor would be R100.

5.3.4.3 Dividend reinvestment plan

An investor would have received a dividend of R100 (after deducting STC), with net dividend calculated as [R100 / (1 + t_{STC})]. Such net dividend is then available for reinvestment in terms of the DRIP. The share acquired as capital in nature would result in capital gains tax on eventual disposal. Security transfer tax, in terms of section 2 of the Security Transfer Tax Act (Republic of South Africa, 2007), would become payable in acquiring the DRIP share based on the dividend after deducting STC which was invested. As the DRIP share is acquired at a consideration, the provisions of section 40C of the Income Tax Act (Republic of South Africa, 2020) would not apply and the base cost of the shares would not be deemed nil rand. The initial acquisition of the share would be deemed the amount of the net dividend and would vest the base cost of such a share. On subsequent disposal of the share, there would consequently not be any capital gains tax on the portion allowed to be deducted as base cost. A share acquired in terms of a DRIP is submitted as having a tax advantage over a capitalisation share (or scrip dividend) as the base cost is not deemed to be nil rand and consequently the net dividend reinvested would reduce a capital gain on eventual disposal. The after-tax value of a R100 share acquired in terms of a DRIP can be summarised as: [R100 / (1 + t_{STC})] - [(R100 / (1 + t_{STC})) x 0.25%] – [R0 x t_{CGT}].

In addition, a corporate investor would also have received a net dividend similar to other investors, but would then be entitled to an STC credit in respect of the dividend received, which is not allowed for other investors. In respect of a corporate investor, the after-tax value would be the net dividend received and increased to include the benefit of an STC credit, simplified as [(R100 x t_{STC}) / (1 + t_{STC})^2], in respect of the dividend so received. The after-tax value for a corporate investor can be summarised as [R100 / (1 + t_{STC})] + [(R100 x t_{STC}) / (1 + t_{STC})^2] - [(R100 / (1 + t_{STC})) x 0.25%].

5.3.5 Period D: 1 January 2011 to 29 February 2012

From 1 January 2011, the reform of the dividend definition would still exclude the issue of capitalisation shares in terms of paragraph (ii) of dividend as defined in section 1 of the Income Tax Act (Republic of South Africa, 2020). The key amendment relating to the fact that any share issued as a capitalisation share (or scrip dividend) would subsequently be excluded from the dividend definition, where only an equity capitalisation share (or scrip dividend) would have been excluded prior to 1 January 2011. The calculation for this period is submitted as the same as for Period A to Period C as the basis for the calculation assumed that equity shares are issued as capitalisation share (or scrip dividend).

5.3.6 Period E to Period H: 1 March 2012 to 29 February 2020

The introduction of dividends tax at investor level results in the investor also receiving a net dividend if subjected to dividends tax. The tax reform affecting the after-tax values of cash dividends and additional shares related solely to changes in tax rates under the dividends tax regime from Period E onwards, with the amendments to the definition of dividend being effective under the STC regime in anticipation of the introduction of dividends tax. The basis for the calculation of after-tax values would consequently be the same for Period E to Period H with the changes in tax rates then affecting the after-tax values.

5.3.6.1 Cash dividend

An individual investor would have received a dividend of R100 (after deducting dividends tax), net dividend calculated as [R100 x (1 - t_{DT})], which represents the after-tax value of receiving a dividend. The calculation of after-tax values of cash dividends under the dividends tax regime is detailed in section 5.2.6.1.

5.3.6.2 Capitalisation share or scrip dividend

The issue of any capitalisation share (or scrip dividend) is not regarded as a dividend and consequently not subjected to dividends tax. Being regarded as capital in nature, the capitalisation share (or scrip dividend) would result in capital gains tax on eventual disposal and be deemed to have an initial acquisition cost of nil rand in terms of section 40C of the Income Tax Act (Republic of South Africa, 2020). The after-tax value of a R100 capitalisation share (or scrip dividend) can be summarised as R100 – [R100 x t_{CGT}].

A fund investor would receive the capitalisation share (or scrip dividend) and would be exempt from capital gains tax on eventual disposal of the shares acquired. The after-tax value of a R100 capitalisation share (or scrip dividend) for a fund investor would be the R100 value received.

5.3.6.3 Dividend reinvestment plan

An investor would have received a dividend of R100 (after deducting dividends tax), with the net dividend calculated as [R100 – t_{DT}], being R85. The net dividend is then available for reinvestment in terms of the DRIP. Being regarded as capital in nature, the share acquired in terms of a DRIP would result in capital gains tax on eventual disposal. As the DRIP share is acquired at a consideration, the provisions of section 40C of the Income Tax Act (Republic of South Africa, 2020) would not apply and the base cost of the shares would not be deemed to be nil rand. The initial acquisition of the share would be deemed to be the amount of the net dividend incurred to acquire the DRIP share. On subsequent disposal of the shares, there would consequently not be any capital gains tax on the portion allowed to be deducted as base cost, resulting in no capital gains tax being paid in respect of the acquisition cost of the DRIP share and capital gains tax only being levied on the capital growth since acquisition. The after-tax value of a R100 share acquired in terms of a DRIP for an individual investor can be summarised as [R100 – t_{DT}] – [(R100 – t_{DT}) x 0.25%] – [R0 x t_{CGT}].

A corporate and fund investor would be exempt from dividends tax if a declaration is submitted to the declaring company indicating the applicable exemption in terms of section 64F of the Income Tax Act (Republic of South Africa, 2020). Such an investor would not receive a net dividend, but the gross dividend, if exempt from dividends tax, would be R100. In contrast to the case of an individual investor, the amount available for reinvestment would not be reduced by dividends tax. The after-tax value of a R100 share acquired by a corporate and a fund investor in terms of a DRIP would be the R100 value received less the applicable security transfer tax, thus [R100 - (R100 x 0.25%)].

5.3.7 After-tax values of additional shares and dividends

Based on the description in the preceding sections and the tax rates for the applicable periods (Table 5.1), the calculated after-tax values and tax differentials (Equation 4.1) are provided in Table 5.4.

A higher-rate individual investor would have had a change in preference from a cash dividend or DRIP share under the STC regime to a capitalisation share (or scrip dividend) after the introduction of dividends tax. Only with the recent increases in the capital gains tax would a higher-rate individual again have a tax-driven preference for a cash dividend or DRIP share. A lower-rate individual investor would have had a tax-driven preference for a capitalisation share (or scrip dividend) during all the periods considered with no change of preference to another payout method. The preference for a capitalisation share indicated as more pronounced since the increase in the rate of dividends tax during Period H. A corporate investor would have preferred a cash dividend or a DRIP share during all

periods considered. The only evident preference based on after-tax values was that a corporate investor would not have preferred a capitalisation share, which had the lowest after-tax values, during all the periods considered. A fund investor would also have had a change in preference as a result of the introduction of dividends tax arising from the dividends tax exemption afforded which was not available under the STC regime. Under the STC regime, a fund investor would have preferred a capitalisation share (or scrip dividend), with a tax-indifferent position under the dividends tax regime.

Table 5.4

After-tax values and tax differentials - Additional shares and dividends

Period and description	Higher-rate individuals	Lower-rate individuals	Corporates	Funds
Period A: 1 March 2007 to 30 September 2007 [STC rate of 12.5%]				
Cash dividend	88.89	88.89	98.77	88.89
Capitalisation share or scrip dividend	90.00	95.50	85.50	100.00
DRIP share	88.89	88.89	98.54	88.67
Tax differential	1.2%	6.9%	13.4%	11.3%
Period B: 1 October 2007 to 29 February 2008 [STC rate of 10%]				
Cash dividend	90.91	90.91	99.17	90.91
Capitalisation share or scrip dividend	90.00	95.50	85.50	100.00
DRIP share	90.68	90.68	98.95	90.68
Tax differential	1.0%	5.0%	13.8%	9.3%
Period C: 1 March 2008 to 31 December 2010 [STC rate of 10%]				
Cash dividend	90.91	90.91	99.17	90.91
Capitalisation share or scrip dividend	90.00	95.50	86.00	100.00
DRIP share	90.68	90.68	98.95	90.68
Tax differential	1.0%	5.0%	13.3%	9.3%
Period D: 1 January 2011 to 29 February 2012 [STC rate of 10%]				
Cash dividend	90.91	90.91	99.17	90.91
Capitalisation share or scrip dividend	90.00	95.50	86.00	100.00
DRIP share	90.68	90.68	98.95	90.68
Tax differential	1.0%	5.0%	13.3%	9.3%
Period E: 1 March 2012 to 28 February 2015 [Dividends tax rate of 15%]				
Cash dividend	85.00	85.00	100.00	100.00
Capitalisation share or scrip dividend	86.68	94.01	81.35	100.00
DRIP share	85.00	85.00	100.00	100.00
Tax differential	1.9%	9.6%	18.6%	0%

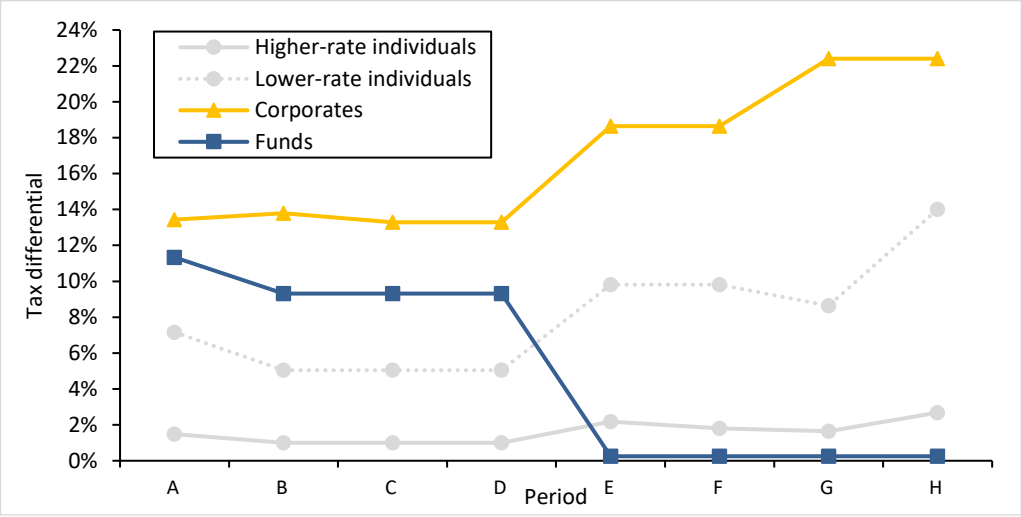
Period and description	Higher-rate individuals	Lower-rate individuals	Corporates	Funds
Period F: 1 March 2015 to 29 February 2016 [Dividends tax rate of 15%]				
Cash dividend	85.00	85.00	100.00	100.00
Capitalisation share or scrip dividend	86.35	94.01	81.35	100.00
DRIP share	85.00	85.00	100.00	100.00
Tax differential	1.6%	9.6%	18.6%	0%
Period G: 1 March 2016 to 28 February 2017 [Dividends tax rate of 15%]				
Cash dividend	85.00	85.00	100.00	100.00
Capitalisation share or scrip dividend	83.60	92.80	77.60	100.00
DRIP share	85.00	85.00	100.00	100.00
Tax differential	1.6%	8.4%	22.4%	0%
Period H: 1 March 2017 to 29 February 2020 [Dividends tax rate of 20% from 22 February 2017]				
Cash dividend	80.00	80.00	100.00	100.00
Capitalisation share or scrip dividend	82.00	92.80	77.60	100.00
DRIP share	80.00	80.00	100.00	100.00
Tax differential	2.4%	13.8%	22.4%	0%

Note. Adapted from Nel (2018). The table depicts the after-tax value of R100 distributed as different payout methods. The tax differential represents the percentage difference between the highest after-tax value and the lowest after-tax value for each investor category during each period. The payout method with the highest value per investor category per period is also highlighted for emphasis.

The trend in tax differentials for each of the categories of investors over the period of tax reform, as derived from Table 5.4, is illustrated in Figure 5.3.

Figure 5.3

Tax differentials - Additional shares and dividends



Prior to the introduction of dividends tax (Period A to Period D), higher tax differentials were indicative of tax preferences under the STC regime for the different categories of investors. The conflicting preference of a corporate investor and a fund investor under the STC regime was evident and high tax differentials for both these categories resulted in the conflicting preferences being more pronounced. The introduction of dividends tax (Period E onwards) resulted in notable increases and decreases in the tax differentials indicative of the increased role of taxes since the introduction of dividends tax. The conflicting preferences of investors were also evident under the dividends tax regime with a fund investor being tax-indifferent.

For higher-rate individuals, the change in tax differentials since the introduction of dividends tax is submitted as the least notable of all categories of investors. For a lower-rate individual, the tax differentials increased notably since the introduction of dividends tax reflecting the preference for a capitalisation share (or scrip dividend) over a cash dividend owing to the effective rate of capital gains tax being lower than the rate of dividends tax. A lower-rate individual would have preferred a capitalisation share or a scrip dividend during all the periods considered. Based on the conflicting preferences of higher-rate individuals and lower-rate individuals for different payout methods, no propositions about payout policies are submitted in respect of individual shareholding.

For a corporate investor, the highest tax differentials were noted, which indicated that a corporate investor was most affected by the introduction of dividends tax. The least preferred payout method for a corporate investor since the introduction of dividends tax would be a capitalisation share (or scrip dividend). The fact that a capitalisation share (or scrip dividend) was subjected to capital gains tax at an effective rate of 15% in Period A, increasing to 22.4% in Period H, resulted in a further decline in the preference for a capitalisation share (or scrip dividend). Based on the increases in the tax differential from 13.3% prior to the introduction to 22.4% in the most recent period considered, a proposition in respect of payout policies is submitted as warranted.

For a fund investor, high tax differentials under the STC regime indicated a strong preference for a capitalisation share (or scrip dividend) over a cash dividend or DRIP shares, with a tax-indifferent position since the introduction of dividends tax. The proposition submitted is that under the STC regime a cash-strapped company could have distributed capitalisation shares (or scrip dividends), instead of cash or DRIP shares, to maximise the after-tax returns for institutional investors. SARS (2010) commented under the STC regime that since the lowering of the STC rate, the practice of issuing capitalisation shares ought to become less popular and that there ought to be a return to declaring cash dividends. Correia et al. (2015, pp. 16–20) noted the contrary under the dividends tax

regime, namely that as scrip dividends and capitalisation issues are not subject to dividends tax, an increase in issuing additional shares instead of cash dividends could be expected in South Africa. Further empirical testing on whether or not issuing additional shares as a payout method since the introduction of dividends tax is submitted as warranted.

5.3.8 Distinction between equity and non-equity shares

The after-tax values of additional shares calculated in the preceding section were based on equity shares being issued as additional shares. A distinction between equity and non-equity shares is also recognised as relevant under the STC regime, and the after-tax values of equity and non-equity shares could accordingly have differed under the STC regime. A non-equity share is a share which limits the investor's participation in return of capital as well as dividends. A company intending to issue additional shares could conceivably issue equity shares (with ordinary shares not limited in participation as example) or non-equity shares (with preference shares limited in participation as example). Prior to 1 January 2011 only the issuing of an equity share would not have constituted a dividend. On or after 1 January 2011 any share, whether equity or non-equity, would not constitute a dividend. The calculations of after-tax values performed assumed that equity shares were issued as capitalisation shares (or scrip dividends). The purpose of this section is to consider whether any of the categories of investors could have had a tax preference for non-equity shares rather than equity shares as capitalisation shares (or scrip dividends) under the STC regime.

Prior to 1 January 2011, non-equity capitalisation shares were regarded as a dividend and the investor would have received a dividend of R100 (after deducting STC), with the net dividend calculated as [R100 / (1 + t_{STC})]. The non-equity shares would be deemed to have been acquired on the date of distribution for an expenditure incurred and paid equal to the amount of the dividend in terms of paragraph 78(1) of the Eighth Schedule to the Income Tax Act (SARS, 2020a, p. 743). The purpose of granting a step-up in base cost for the non-equity capitalisation share was to prevent economic double taxation on the same amount, being STC at the company level and capital gains tax at the investor level (SARS, 2020a, p. 744). A non-equity capitalisation share (or scrip dividend) would not have been subject to capital gains tax on eventual disposal of the share on the amount distributed, compared to an equity share which would have been acquired at nil rand in terms of section 40C of the Income Tax Act (Republic of South Africa, 2020). The after-tax value of receiving a non-equity capitalisation share (or scrip dividend) would be [R100 / (1 + t_{STC})]. In addition, a corporate investor would have received a net dividend similar to other investors, but would then be entitled to a STC credit in respect of the dividend received, which is not allowed to other investors. In respect of a corporate investor, the after-tax value would be the net dividend received but it would be increased to include the benefit of an

STC credit simplified as $[(R100 \times t_{STC}) / (1 + t_{STC})^2]$. The after-tax value for a corporate investor would be $[R100 / (1 + t_{STC})] + [R100 / (1 + t_{STC})] + [(R100 \times t_{STC}) / (1 + t_{STC})^2]$.

The after-tax values of equity and non-equity shares issued as capitalisation share (or scrip dividend) are submitted in Table 5.5. The after-tax values for Period A to Period D are shown as the distinction, between equity and non-equity shares, was only relevant under the STC regime.

Table 5.5

Distinction between equity and non-equity shares issued as payout method

Period and description	Higher-rate individuals	Lower-rate individuals	Corporates	Funds
Period A: 1 March 2007 to 30 September 2007				
Non-equity share (a dividend)	88.89	88.89	88.89	88.89
Equity share (not a dividend)	90.00	95.50	85.00	100.00
Tax differential	1.3%	6.9%	4.4%	11.1%
Period B: 1 October 2007 to 29 February 2008				
Non-equity share (a dividend)	90.91	90.91	90.91	90.91
Equity share (not a dividend)	90.00	95.50	85.50	100.00
Tax differential	1.0%	4.8%	6.0%	9.1%
Period C: 1 March 2008 to 31 December 2010				
Non-equity share (a dividend)	90.91	90.66	90.91	90.91
Equity share (not a dividend)	90.00	95.50	86.00	100.00
Tax differential	1.0%	5.1%	5.4%	9.1%
Period D: 1 January 2011 to 29 February 2012				
Non-equity share (a dividend)	90.91	90.91	90.91	90.91
Equity share (not a dividend)	90.00	95.50	86.00	100.00
Tax differential	1.0%	4.8%	5.4%	9.1%

Note. The table depicts the after-tax value of R100 distributed as additional shares with the tax differential representing the percentage difference between the payout method with the highest and lowest after-tax value during each period.

The election of a non-equity share rather than an equity share could entail either a limit on participating in future profits or a limit on voting rights. Based on tax reform the tax differential for higher-rate individuals is almost negligible with the highest differential noted for fund investors. Fund investors, as institutional investors, could serve a monitoring role as investor in corporate governance matters. The decision of a fund investor to elect non-equity shares could result in reduced voting rights which would negatively affect their monitoring role. In conclusion, the present study submitted no proposition on payout policies in respect of a choice between equity and non-equity shares.

5.4 CONCLUSION

The findings of this chapter suggest that tax reform in a South African context resulted in significant changes in investor tax-driven preferences for different payout methods. This chapter considered the tax preference of investors for cash dividends and two possible substitute payout methods: share repurchases and additional shares. A tax differential (difference between payout method with highest after-tax value and the lowest after-tax value) was considered as an indication of tax preference of one payout method over another. In addition to propositions submitted on the basis of overview of tax reform in Chapter 3 (Table 3.3), further propositions in respect of payout policies based on after-tax values are submitted on the basis of the findings of this chapter.

General repurchase (or open-market repurchase) of shares would since 2011 not constitute a dividend resulting in no dividends tax exemption being available to corporate or fund investors. As a result, the tax preference of corporate and fund investors for dividends could have discouraged the use of general repurchases as a payout method since the introduction of dividends tax in 2012. In particular, the high tax differentials observed in respect of corporate investors (Figure 5.1) reflect the preference for dividends above general repurchases, which is further enunciated as a result of increases in applicable tax rates. The expectation is that general share repurchases post-2012 would be lower than general repurchases pre-2012 (proposition 5).

Specific share repurchases would still constitute dividends to the extent that a reduction of CTC is exceeded. The popularity of specific share repurchases could increase since the introduction of dividends tax because of an exemption afforded to corporate and fund investors. Based on the after-tax values considered in this chapter, the expectation is that specific share repurchases (including specific repurchases from subsidiaries) post-2012 would be higher than specific repurchases pre-2012 (proposition 6). In particular, the value of shares repurchases from a subsidiary is also expected to be lower during 2011 pending the introduction of dividends tax if compared to other periods (Table 3.3).

Additional shares as a payout method could be issued as capitalisation shares or scrip dividends. Scrip dividends empower investors to decide between a cash dividend (subject to dividends tax) or additional shares (subject to capital gains tax if held with capital intent). The introduction of dividends tax, levied at investor level, enunciates the conflicting tax preferences of investors and the opportunity to provide investors with the option to decide between dividends tax or capital gains tax. The expectation is that additional shares issued in terms of scrip dividends post-2012 would be higher than pre-2012 (proposition 7).

The tax preference of corporate investors is submitted as being most affected as a result of the introduction of dividends tax and consecutive increases in the rate of capital gains tax. The differential between the rate at which dividends and capital gains tax are taxed emphasises the preference for dividends as payout method above share repurchases and additional shares. The expectation is that changes in the investor tax preference parameters of corporates would explain changes in payout methods more than other investor tax preference parameters considered (proposition 8).

In Chapter 3, four propositions in respect of payout policies were submitted on the basis of an overview of tax reform (Table 3.3). Based on the after-tax values calculated and tax differentials considered in this chapter, an additional four propositions on payout policies, including the research objectives to which each proposition relates, are submitted in Table 5.6.

Table 5.6

Propositions in respect of payout policies based on after-tax values

Proposition number	Description	Proposition in respect of payout policies	Research objective
5	General repurchases	General share repurchases post-2012 would be lower than general repurchases pre-2012.	Third research objective
6	Specific repurchases	Specific repurchases post-2012 would be higher than specific repurchases pre-2012.	Third research objective
7	Additional shares	Additional shares issued in terms of scrip dividends post-2012 would be higher than pre-2012.	Third research objective
8	Tax preference of corporate investors	Changes in the investor tax preference parameters of corporates would explain changes in payout methods more than other investor tax preference parameters considered.	Fourth research objective

Proposition 5 to proposition 7 were considered based on the investigation of the trend and composition of total payout in Chapter 7 (pursuant of the third research objective). Proposition 8 was considered based on the investigation of the relationship between investor tax preference parameters and payout methods in Chapter 8 (pursuant of the fourth research objective).

Evident from the after-tax values and tax differentials considered in this chapter was the conflicting tax preferences of investors. The conflicting tax preferences serve as basis for the theoretical argument for the increased role of taxes due to tax reform. This chapter accordingly argued the magnitude of tax reform as a recurring theme and included ownership as recurring theme based on a distinction between different investors.

The conflicting tax preferences of investors further provide an opportunity to investigate how companies respond when faced with these conflicting tax preferences (Badenhorst, 2017, p. 103). This study proceeded by investigating the timing of dividend declarations during 2012 in Chapter 6 to determine whether the timing of dividend declarations was accelerated or postponed based on the introduction of dividends tax.

CHAPTER 6: TIMING OF DIVIDEND DECLARATIONS

6.1 INTRODUCTION

The second research objective of this study was pursued in this chapter by investigating the timing of dividend declarations before and after the introduction of dividends tax. The financial years from 2009 to 2015 of selected companies were considered (Figure 4.1). The aim of this chapter was to investigate whether dividend declarations were accelerated or postponed during the 2012 financial year of companies. The investigation of the timing of dividend declarations could provide insight into the first behavioural response in respect to taxes, indicated by Slemrod (1992) as the timing of economic transactions. The results arrived at in this chapter were used to draw a conclusion on support for proposition 1 submitted in a previous chapter (Table 3.3). Proposition 1 is based on the magnitude of tax reform and the anticipation of tax reform as recurring themes (Figure 2.2).

The anticipation of the introduction of dividends tax in South Africa on 1 April 2012 afforded the opportunity to investigate the effect of investor-level tax reform on payout policies. The timing of dividend declarations during the financial years from 2009 to 2015 was considered in order to provide data on the three years before and after the introduction of dividends tax. An exploratory study was performed in respect of the timing of dividend declarations (Nel & Wesson, 2019). The descriptive study of Nel and Wesson (2019) was replicated in this chapter based on the population of the present study. The population of Nel and Wesson (2019) consisted of 130 companies whereas the population of this study consisted only of 116 companies based on refined sector descriptions applied for inclusion. This chapter expands on existing literature in two respects. Firstly, a novel unit of analysis was employed in the days-to-declaration (calculated as detailed in section 4.6.2.2) that can be considered in other studies pertaining to the timing of dividends. Secondly, empirical evidence was provided on the timing of the different types of dividends (final, interim and special dividends) based on an anticipated change in tax regime in a developing country. The South African regulatory framework in respect of dividend declarations is described in detail in section 2.8.4.

As described in Chapter 4, the data analyses in this chapter were performed by means of descriptive statistics resulting in empirical evidence on the timing of dividend declarations. The results of the data analyses performed are presented in the sections which follow.

6.2 THE TREND IN DAYS-TO-DECLARATION OF DIVIDENDS

The descriptive statistics in respect of the mean days-to-declaration, in aggregate for all companies, of final and interim dividends are provided in Table 6.1.

Table 6.1

Descriptive statistics - Days-to-declaration of dividends

Financial year	Final dividends				Interim dividends			
	N	*M*	*Mdn*	*SD*	*N*	*M*	*Mdn*	*SD*
2009	58	426.79	422.00	17.93	45	235.86	233.00	14.72
2010	58	426.55	421.00	17.74	45	236.82	234.00	16.70
2011	77	432.58	425.00	23.55	57	239.91	234.00	22.87
2012	77	429.57	422.00	24.18	57	241.39	233.00	23.93
2013	77	430.95	424.00	22.73	57	239.09	235.00	21.31
2014	58	427.64	422.00	19.28	45	237.47	235.00	15.04
2015	58	429.19	422.50	19.61	45	237.89	234.00	16.52
All years	**463**	**429.29**	**422.00**	**21.18**	**350**	**238.54**	**234.00**	**19.41**

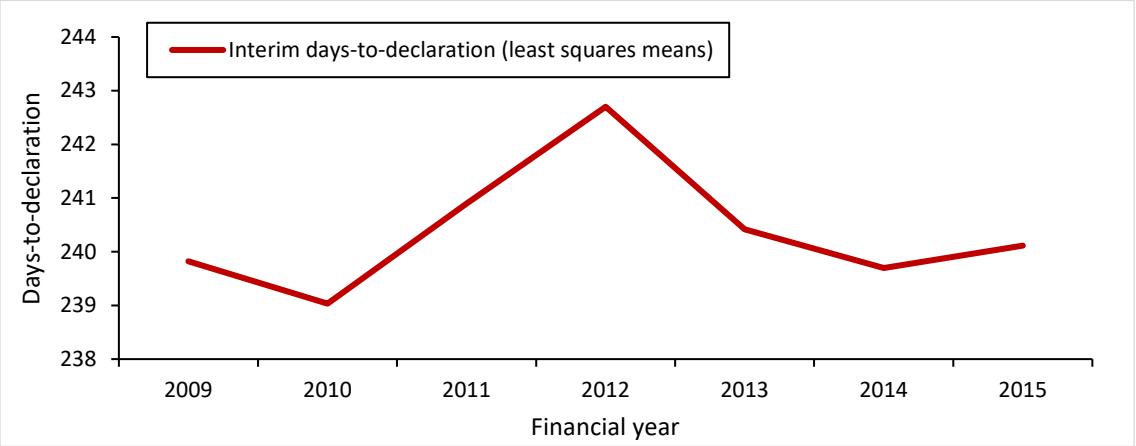
Note. The table represents a replication of the descriptive study of Nel and Wesson (2019) based on the population of the present study. Descriptive statistics in respect of days-to-declaration data are presented by the number of company-year observations (*N*), the mean (*M*), the median (*Mdn*), and the standard deviation (*SD*).

The mean days-to-declaration of final dividends suggests that companies declared final dividends at least two months after the end of financial years (being 429 days less 365 days, which equals 64 days). Interim dividends, in turn, were declared 239 days into each respective financial year. The 2012 financial year of companies for both final and interim dividends were characterised by the highest dispersion of data, based on standard deviations, of all years considered. The data in respect of final dividends were also more dispersed than interim dividends over all financial years, which could be as a result of financial reporting delays and audit report lags (as discussed in section 2.8.4), being more prevalent in relation to final dividends. In respect of final dividends, the mean days-to-declaration during 2011 exceeded the mean over all financial years, which could suggest a postponement during 2011. The mean days-to-declaration of final dividends during 2012 was, however, in line with the mean over all financial years and does not suggest any notable postponement or acceleration of final dividends during the 2012 financial year of companies.

In respect of interim dividends, the mean days-to-declaration during 2012 exceeded the mean over all financial years, which suggests a postponement of interim dividends during 2012. A comparison of 2012 with other financial years also suggests a postponement of interim dividends during 2012, in which the highest days-to-declaration are observed. The general trend in the least square means of interim dividend days-to-declaration is illustrated in Figure 6.1.

Figure 6.1

Trend in interim days-to-declaration from 2009 to 2015

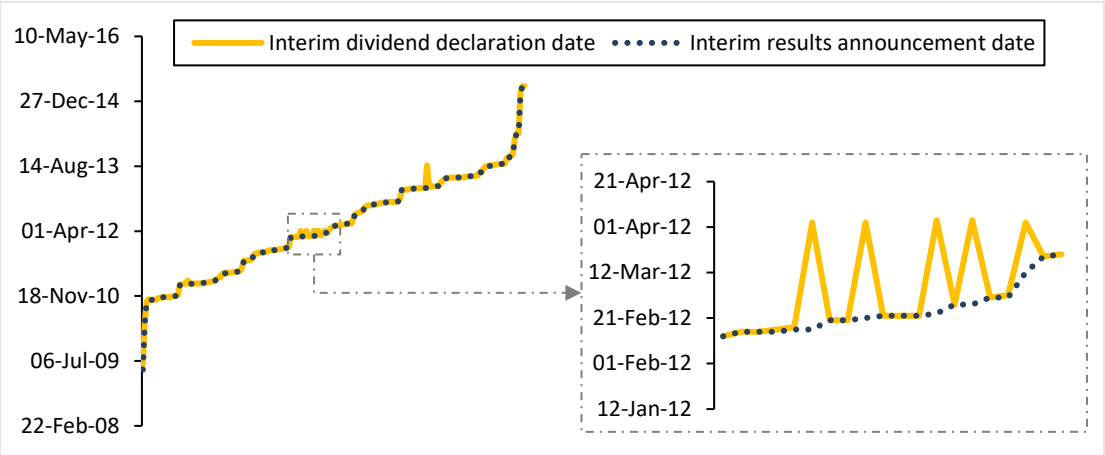


The postponement of interim dividends during 2012 observed in Figure 6.1 can be explained by a delay in financial reporting, including audit report lag, if applicable, which is not necessarily related to the change in tax regime during 2012. In order to investigate a delay in financial reporting as an explanation for the postponement, the interim results announcement dates and interim dividend declaration dates were compared. On the premise that a dividend declaration was postponed owing to a delay in financial reporting, the results announcements date and dividend declaration date would be the same (i.e. would not differ). A difference between the results announcement date and dividend declaration date would be interpreted as a postponement in interim dividend declaration, not due to a delay in financial reporting.

A graphical representation of results announcement dates and dividend declaration dates in chronological order is provided in Figure 6.2.

Figure 6.2

Interim dividend declaration dates and interim results announcement dates



Note. The figure is based on the descriptive study of Nel and Wesson (2019).

Evident from Figure 6.2 is the difference between interim dividend declaration dates and interim results announcement dates around 1 April 2012, with peaks indicating declarations dates which differ from results announcement dates. The peak observable around 14 August 2013 is submitted as an outlier. The peaks in declarations dates noted during 2012 are not submitted as a result of delays in financial reporting as results were announced before dividends were declared. If the delay in financial reporting were to have resulted in a postponement of the dividend declaration, no differences in dates would have been expected. Audit report lag during 2012 could also explain a postponement in days taken to declare interim dividends, provided the relevant companies had a disclaimed, qualified or adverse audit opinion in their previous annual financial statements and required a statutory audit. None of the companies that declared interim dividends in 2011 had a disclaimed, qualified or adverse audit opinion in 2011, and audit report lag can consequently not be submitted as an explanation for a postponement of interim dividends of these companies during 2012. Accordingly, delays in financial reporting and audit report lag are not submitted as explanations for the postponement of interim dividends during 2012.

The preceding discussions provide findings on the trend of days-to-declaration in aggregate for selected companies and did not provide evidence of the response of individual companies to the change in tax regime during 2012. The descriptive statistics also did not provide insights pertaining to the specific date of 1 April 2012 on which the change in tax regime occurred.

The sections which follow present an investigation at individual company level to gain an insight into the timing of declarations before and after 1 April 2012 by addressing three sub-questions, namely:

i. whether the timing of final and interim dividend declarations before or after 1 April 2012 differed from those in the immediately preceding year and subsequent year;
ii. whether the frequency of special dividend declarations during 2012 differed from those in surrounding years; and
iii. whether the occurrence of non-declaration of dividends during 2012 differed from those in surrounding years.

6.3 THE TIMING OF DECLARATIONS BEFORE OR AFTER 1 APRIL 2012

The first sub-question for the investigation on individual company-basis focused on 1 April 2012 as the date of interest, being the effective date of the introduction of dividends tax. The companies that declared final and interim dividends during 2012 were investigated to discover how many had declared dividends before 1 April only in 2012 (and as a result had declared dividends after 1 April in 2011 and 2013). A company that had declared dividends before 1 April only in 2012 was interpreted as having accelerated dividend declarations in 2012, as the timing could have been earlier in 2012 in an attempt to subject such dividends to STC and not dividends tax. Conversely, it was also investigated how many companies had declared dividends after 1 April only in 2012 (i.e. before 1 April in 2011 and 2013). A company that had declared dividends after 1 April only in 2012 was interpreted as having postponed dividend declarations in 2012, as the timing could have been later in order to subject such dividends to dividends tax and not STC. A change in financial year-end could also explain the shift before or after April during the respective financial years; hence for each company identified and included in Table 6.2 it was confirmed that a change in financial year-end did not result in the shift before or after April in 2012 as none of these companies had a change in financial year-end.

Table 6.2

Dividend declarations before and after April in 2012 only

Dividend type	Number of companies (number of declarations)	Before April in 2012 only	After April in 2012 only
Final	77	2	1
Interim	57	0	5
Total	**134**	**2**	**6**

Note. The table represents a replication of the descriptive study of Nel and Wesson (2019) based on the population of the present study.

In respect of final dividends, only three companies declared final dividends during 2012 in a manner not consistent with 2011 and 2013. This provided evidence of specific behaviour indicating a possible postponement by one company and acceleration by two other companies in respect of final dividends. Concerning interim dividends, five companies declared interim dividends after April only in 2012 (before April in 2011 and 2013). This finding corroborates the observed postponement relating to interim dividends noted in Figure 6.1 and merits the argument in favour of a tax explanation for the postponement based on 1 April 2012 as the date of the change in tax regime.

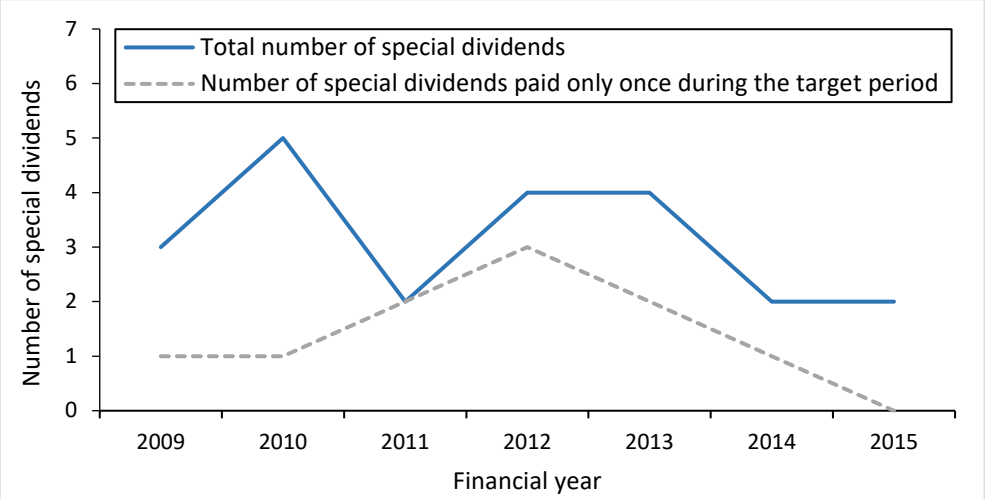
6.4 THE FREQUENCY OF SPECIAL DIVIDEND DECLARATIONS DURING 2012

The second sub-question for the investigation at individual company level focused on the frequency of special dividend declarations during 2012. Hanlon and Hoopes (2014, p. 105) predicted and found a surge in special dividend declarations in the final months immediately before individual-level dividend tax rates were expected to increase. Accordingly, it was investigated whether the frequency of special dividend declarations during 2012, the year of change in the tax regime, differed from the frequency of declarations in surrounding years. Special dividends could have been employed to postpone or accelerate distributions, pending the introduction of dividends tax in 2012.

For the period 2009 to 2015, 15 of the companies selected declared 22 special dividends in total, as detailed in Appendix A. The trend in special dividends declared from 2009 to 2015 is illustrated in Figure 6.3 with reference to the total number of special dividends declared during each financial year and the number of special dividends paid only once during the target period by companies.

Figure 6.3

Number of special dividends declared from 2009 to 2015



The general trend observed in the total number of special dividends suggested an increase in the frequency of special dividends declared during 2012 when compared to 2011. However, the frequency of special dividends during 2012 mirrored those of 2013 and were comparatively lower than those in 2010. Based on the general trend in the total number of special dividends, no observable increase in frequency during 2012 is submitted. As a further comparison of 2012 with other financial years, the frequency of declaring special dividends only during 2012 was considered. If a company only declared a special dividend in 2012 and not in the preceding or subsequent financial years, this could serve as an indication of acceleration or postponement of dividends in response to the tax reform in 2012. The number of special dividends declared during only 2012 was only one observation more than 2011 and 2013 (Figure 6.3), which suggests only a marginal increase during 2012. As the total number of special dividends declared during 2012 was not higher than other financial years and only a marginal increase in special dividends declared only in 2012 was observed, limited insights into the increased use of special dividends during 2012 are submitted. The findings of this study accordingly do not mirror those of Hanlon and Hoopes (2014, p. 105) who predicted and found a surge of special dividend declarations in the final months immediately before the increase of the dividends tax rates in the USA.

6.5 THE NON-DECLARATION OF DIVIDENDS DURING 2012

The third sub-question for the investigation at individual company level focused on the non-declaration of dividends during 2012. For companies that did not declare a final or interim dividend during 2012, two specific aspects were investigated. Firstly, it was investigated whether such companies were profitable (profit before tax according to the statement of comprehensive income) and demonstrated positive cash flows (positive cash flows from operating activities according to the cash flow statement) in 2012. Secondly, it was investigated whether the company had followed a dividend policy of declaring dividends during the immediately preceding year (2011) and the immediately subsequent year (2013). A profitable company with positive cash flows during 2012 and dividends in the immediately preceding and subsequent year could also have been expected to declare a dividend during 2012. In such instances, the non-declaration during 2012 was interpreted as an indication of possible postponement during 2012.

The descriptive statistics in respect of the number of companies not declaring dividends in 2012 are presented in Table 6.3.

Table 6.3

Number of companies not declaring dividends in 2012

Dividend type	Total number of companies with no dividend in 2012	Profitable and positive cash flows in 2012	No dividend in 2011	No dividend in 2013
Final	11 (100.00%)	6 (54.54%)	8 (72.72%)	7 (63.63%)
Interim	3 (100.00%)	2 (66.66%)	2 (66.66%)	1 (33.33%)
Total	**14**	**8**	**10**	**8**

Note. The table represents a replication of the descriptive study of Nel and Wesson (2019) based on the population of the present study. The number of companies is shown with the percentage of the total number of companies in parentheses.

In respect of final dividends, most of the selected companies (54.54%) were profitable and had positive cash flows during 2012; however, of these companies, most did not declare dividends during 2011 and 2013. In respect of interim dividends, most of the companies (66.66%) were also profitable and had positive cash flows during 2012; however, the same percentage of companies also did not declare dividends during 2011 and one company also did not declare a dividend during 2013. The fact that no dividends were declared in 2012 is submitted as a consequence of overall dividend policy in respect of final and interim dividends and not as an indication of a postponement during 2012 in response to the tax reform in 2012.

6.6 CONCLUSION

Hanlon and Hoopes (2014, p. 105) provided evidence consistent with companies making decisions in response to investor-level taxes in order to maximise investor wealth. The findings of this chapter contributed to empirical evidence in respect of South Africa by investigating: (i) the timing of dividend declarations surrounding a period of change in tax regime based on calculated days-to-declaration, (ii) the frequency of special dividends, and (iii) the non-declaration of dividends.

The trend in days-to-declaration for both final and interim dividends was described in aggregate for all companies selected. In respect of final dividends, no postponement or acceleration during 2012 was observed. Based on the investigation at individual company level only three final dividends were observed as being declared before or after April 2012, inconsistent with other years (Table 6.2), which provides limited support for a finding of an acceleration or postponement of final dividends in 2012. In respect of interim dividends, a postponement during 2012 is suggested on the basis of the highest days-to-declaration observed during 2012 (Figure 6.1). This finding is supported by the investigation

at individual company level in which it was noted that five of the 57 interim dividends were declared after April in 2012 but before April in surrounding years (Table 6.2). Delays in financial reporting, audit report lags, and changes in year-ends are also not submitted as explanations for the postponement of interim dividends during 2012. Proposition 1 of this study is that the timing of dividend declarations during 2012 would differ from immediately preceding and subsequent years (Table 3.3). Based on the results of this chapter, proposition 1 is supported as a postponement in the timing of interim dividends was observed during 2012 and a tax explanation for such a postponement was submitted.

In respect of special dividends, the trend in the number of special dividends declared between 2009 and 2015 was investigated. A marginal increase in the number of special dividends declared only in 2012 was observed which provided limited insights into the acceleration of special dividends during 2012 (Figure 6.3). These descriptive observations in respect of special dividends are expanded on in subsequent chapters by investigating tax as an explanation for changes in special dividends based on proposition 2 and proposition 8 of this study.

The non-declaration of dividends during 2012 was also investigated as a possible mechanism of postponement of dividends. For final and interim dividends, it was found that the majority of companies that did not declare dividends in 2012 were profitable and had positive cash flows during 2012 (Table 6.3). However, these companies also did not declare dividends during 2011 and 2013. The fact that no dividends were declared in 2012 is submitted as a result of an overall dividend policy in respect of dividends and not as an indication of a postponement during 2012.

This chapter focused only on the actual timing of dividend declarations. In Chapter 7, which follows, the trend and composition of total payout were investigated in order to provide insights into the possible response to taxes by means of adjusting the size of payout methods.

CHAPTER 7: TREND AND COMPOSITION OF TOTAL PAYOUT

7.1 INTRODUCTION

The third research objective of this study was pursued in this chapter by investigating the trend and composition of total payout before and after the introduction of dividends tax. The financial years from 2006 to 2018 of selected companies were examined (Figure 4.1). The aim of this chapter was to describe the movement in total payout of selected JSE-listed companies with the focus on two sub-periods around 2012, namely the six-year period from 2006 to 2011 (hereafter referred to as 'pre-2012') and the six-year period from 2013 to 2018 (hereafter referred to as 'post-2012'). The results arrived at in this chapter were used to draw a conclusion on support for proposition 2 to proposition 7 submitted in previous chapters (Table 3.3 and Table 5.6). These propositions are based on the magnitude of tax reform and the anticipation of tax reform as recurring themes (Figure 2.2).

The propositions submitted which were based on tax reform and after-tax values resulted in the expectation that the trend and composition of payout during the post-2012 period would differ from the pre-2012 period (Table 3.3 and Table 5.6). The expectation was that dividends (ordinary and special) would be higher during the post-2012 period resulting in lower retention rates expected during the post-2012 period. Special dividends as a result of unbundling transactions were excluded from the data analyses performed in this chapter (as detailed under section 4.7.2.2). With reference to payout other than dividends, additional shares issued in terms of scrip dividends and specific share repurchases (including from subsidiaries) were also expected to be higher during the post-2012 period. In particular, specific repurchases from subsidiaries were expected to be lower during 2011 pending the introduction of dividends tax, when compared to other periods. Capital distributions and general share repurchases were expected to be lower during the post-2012 period. Tax as an explanation for changes in the trend and composition of payout was inferred on the basis of support for the propositions. This chapter included consideration of profitability as a confounding factor in payout behaviour in terms of the research method described in section 4.7.1.

This chapter expanded on existing literature in three respects. Firstly, this is the first study to investigate the trend and composition of the total payout in the South African context. Secondly, the chapter expands on existing dividends and share repurchases databases not readily available on any commercial database. Thirdly, the chapter compiles a database of the total payout of listed companies (consisting of dividends, capital distributions, additional shares, and share repurchases) which could serve as the basis for future research.

The study presented in this chapter was published in a peer-reviewed paper (Nel & Wesson, 2021) that originated from the research in the thesis. This chapter expands on the published paper by including consideration of specific repurchases from subsidiaries relating to proposition 4 of the present study (Table 3.3). Data analysis in this chapter was performed by means of descriptive statistics and a mixed-model ANOVA (as described in Chapter 4). The results presented proceed with the descriptive statistics of the trend in payout methods, and are followed by the results of the ANOVA.

7.2 DESCRIPTIVE STATISTICS OF THE TREND IN PAYOUT METHODS

Total payout data collected for the period 2006 to 2018 amounted to the value of R820 billion in nominal terms. As inflation could contribute to increases in the nominal value of payout over a period, an investigation of payout in real terms (adjusted for inflation according to CPI inflation values as indicated in Appendix F) is submitted as necessary. The consideration of the percentage of each payout method of total payout is also submitted as warranted in order to provide insights into the composition of total payout. The nominal values, real values (adjusted for inflation to reflect in 2006 terms), and the percentage of each payout method of total payout (in real terms) are submitted in Table 7.1.

Table 7.1

Values of different payout methods for the period 2006 to 2018

Description	Nominal values (Rand value)	Real values (Rand value)	Percentage
Ordinary dividends	639 042 023 529	410 106 219 762	75.42%
Special dividends	27 310 654 179	20 037 696 065	3.69%
Capital distributions	30 064 182 386	23 698 775 607	4.36%
Additional shares	4 294 082 845	2 293 839 350	0.42%
Specific repurchases not from subsidiaries	30 507 472 292	20 432 050 203	3.76%
Specific repurchases from subsidiaries	39 370 261 779	29 830 226 952	5.49%
General repurchases	50 282 951 234	37 338 763 141	6.87%
Total payout	**820 871 628 243**	**543 737 571 080**	**100.00%**

Note. Sourced from Nel and Wesson (2021).

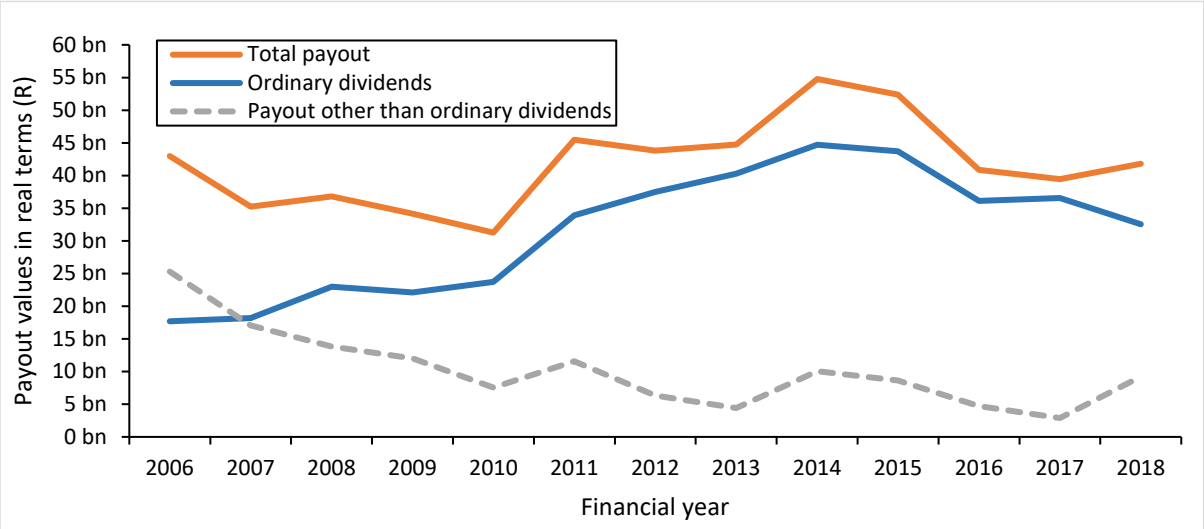
Ordinary dividends represented a three-quarter majority (in real terms) of total payout, and payout methods other than ordinary dividends represented the remaining quarter of total payout during the period 2006 to 2018. Based on the total value of payout, ordinary dividends were observed as

the most preferred payout method (75.42% of total payout) followed by general repurchases (6.87% of total payout). Additional shares (0.42% of total payout) were observed as the least preferred payout method, followed by special dividends (3.69% of total payout) as second least preferred payout method. The composition of total payout for the period in value was accordingly overwhelmingly represented by ordinary dividends.

When investigating whether the preference for payout methods changed during the period, the year-to-year trend and composition of payout over the period were examined. The annual values in real terms of ordinary dividends and payout methods other than ordinary dividends over the period 2006 to 2018 are presented in Figure 7.1.

Figure 7.1

Annual payout values in real terms for the period 2006 to 2018



Note. Sourced from Nel and Wesson (2021).

The value of ordinary dividends exceeded the value of other payout methods since 2008 with a notable increase in ordinary dividends evident from 2011 to 2014, compared to payout other than ordinary dividends, which did not show the same notable increase. The total annual payout of the selected companies peaked during 2014 at R55 billion, followed by 2015 (at about R52 billion). The total annual payout was the lowest during 2010, which could be attributed to a lagged effect due to the global financial crisis of 2008 (Nyere & Wesson, 2019, p. 9), and again notably decreased from 2016.

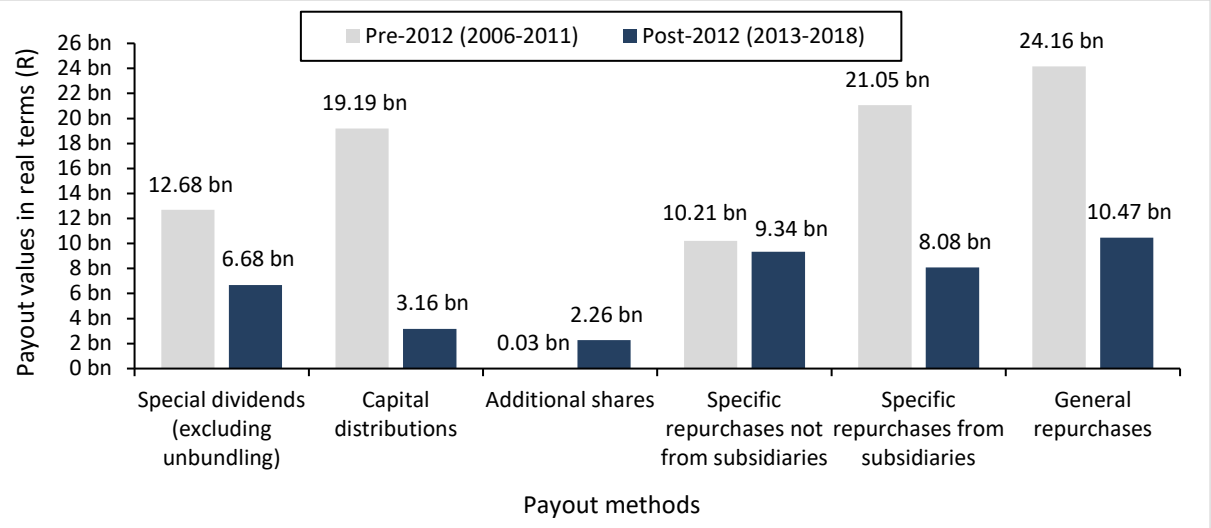
The South African economy ground to an apparent halt during 2016, with the country's central bank expecting zero percent growth (KPMG, 2016). Furthermore, the highest unemployment rate in more than a decade, which registered at 26.7% during the first quarter of 2016, and high consumer price inflation resulted in the South African Reserve Bank increasing interest rates (KPMG, 2016).

The resulting low economic growth, high unemployment, and a strained fiscus also evolved into a political crisis (Mthanti, 2017). The political and economic uncertainty could explain the lower payout noted since 2016, based on Figure 7.1. The six-year period before 2012 was characterised by the global financial crisis during 2008, and the six-year period after 2012 was characterised by political and economic uncertainty in South Africa during 2016, which resulted in lower payout during each of these periods. Both sub-periods being compared were characterised by poor macroeconomic conditions during at least one year. The six-year period before 2012 had a mean change in annual gross domestic product of 3.15%, whereas the six-year period after 2012 had only a mean change in annual gross domestic product of 1.35% (World Bank, 2020). Despite lower real economic growth during the post-2012 period, higher payout still occurred compared to pre-2012. The increase in the dividends tax rate from 15% to 20% from early 2017 (Table 5.1) coincided with poor economic conditions over the same period, both of which could have contributed to the decrease in dividends observed since 2017. Based on annual payout values for the period 2006 to 2018 (Figure 7.1), the trend in payout identified was that ordinary dividends increased, whereas payout methods other than ordinary dividends decreased over the period.

The payout methods other than ordinary dividends consist of different payout methods and should be disaggregated in order to investigate the trend in the respective payout methods. The respective payout methods during each of the sub-periods of this study were compared in order to identify possible trends in payout methods. The values (in real terms) for each payout method other than ordinary dividends during the two sub-periods of this study are illustrated in Figure 7.2.

Figure 7.2

Payout methods other than ordinary dividends pre-2012 and post-2012



Note. Sourced from Nel and Wesson (2021).

Payout methods other than ordinary dividends, except for additional shares, were lower during the post-2012 period if compared to the pre-2012 period (Figure 7.2). Additional shares increased in value (an increase of R2.23 billion) from the pre-2012 period to the post-2012 period but represented the lowest value of total payout during the period 2006 to 2018. The decrease in the value of capital distributions (decrease of R16.02 billion) was noted as the highest decrease and the decrease in the value of general repurchases (decrease of R13.69 billion) was noted as the second highest decrease. In total, payout other than ordinary dividends was dominated by share repurchases in value.

Based on the movement in values of payout methods other than ordinary dividends (Figure 7.2), the trend and composition of payout were observed to have changed during the post-2012 period in two respects. Firstly, there were decreases in the value of special dividends, capital distributions, specific repurchases from subsidiaries, specific repurchases not from subsidiaries, and general repurchases – with the most notable decreases in respect of capital distributions and general repurchases. The composition of total payout post-2012 was noted to have differed from pre-2012 in respect of the value of payout other than ordinary dividends decreasing, whereas the value of ordinary dividends was noted as being higher post-2012 than in pre-2012 (Figure 7.1). Secondly, in respect of payout methods other than ordinary dividends, there was only an increase in the value of additional shares, although being the lowest value of all payout methods.

In addition to considering the movement in the value of payout methods, the movement (or change) in the frequency of electing a payout method from the pre-2012 to the post-2012 period was examined. The frequency of electing a payout method allows for inference of the increased or decreased activity in respect of a payout method. An increase in the frequency of electing a payout method could be indicative of more companies electing a payout method during a financial year or individual companies electing a payout method in more than one financial year. A decrease in the frequency of electing a payout method could be indicative of fewer companies electing a payout method during a financial year or individual companies electing a payout method in fewer financial years.

The movement in the frequency of electing and the value of payout is provided in Table 7.2.

Table 7.2

Movement in frequency of electing and values of payout methods

Description	Frequency of electing:		Movement in frequency	Movement in value (in real terms)
	Pre-2012	Post-2012		
Ordinary dividends	493	512	3.90%	68.80%
Payout other than ordinary dividends	262	265	1.10%	-54.20%
Special dividends	27	20	-25.90%	-47.60%
Capital distributions	88	20	-77.30%	-83.50%
Additional shares	2	11	>400.00%	>400.00%
Specific repurchases not from subsidiaries	30	45	50.00%	-8.50%
Specific repurchases from subsidiaries	29	19	-34.50%	-61.60%
General repurchases	162	191	17.90%	-56.70%
Total payout	568	563	-0.90%	21.30%

Note. Sourced from Nel and Wesson (2021).

The movement in the value of ordinary dividends (68.8%) is supported by an increase in the frequency of electing ordinary dividends (3.9%) as a payout method during the post-2012 period. The increase in the value of ordinary dividends post-2012, which exceeds the increase in the frequency, could have been due to companies that elected ordinary dividends during the pre-2012 period increasing the value of their ordinary dividends post-2012. In contrast to the increase in the value of ordinary dividends, a decrease in the value of payout methods other than ordinary dividends (54.2%) during the post-2012 period was evident. The total payout increase in value (21.3%) during the post-2012 period was attributed to ordinary dividends rather than other payout methods.

The movements in value and frequency of electing payout methods other than ordinary dividends during the post-2012 period also differed when based on individual consideration of each payout method. The decrease in the frequency of electing special dividends, capital distributions, and specific repurchases from subsidiaries in the post-2012 period supported the observed decrease in the value of these payout methods post-2012. The frequency of electing additional shares as a payout method increased more than fourfold post-2012 and supported the increase in value of the payout method post-2012. Only one company, Mix Telematics Limited (2008, p. 22), was noted to have issued capitalisation shares with no cash alternative funded from retained earnings, which represented less than 0.05% of total value of additional shares collected as payout method. Additional shares issued post-2012, based on the value of additional shares, were noted to have a cash alternative.

An evident preference for issuing additional shares as a payout method using scrip dividends (i.e. with a cash alternative), as opposed to a capitalisation issue with no cash alternative, was noted in the post-2012 period. The inclusion of a cash alternative affords investors the opportunity to elect either cash dividends (considered for dividends tax) or additional shares (considered for capital gains tax if held with capital intent). This finding supports the flexibility of scrip dividends as a payout method and the increased use of this payout method post-2012. Despite the frequency of electing specific repurchases not from subsidiaries and general repurchases increasing during the post-2012 period, the value of these payout methods decreased during the post-2012 period. Total specific repurchases exceeded general repurchases in value during the post-2012 period (Figure 7.2); however, specific repurchases were elected notably fewer times than general repurchases as payout method during the post-2012 period (Table 7.2). This finding implies that specific repurchases were elected fewer times as payout method but at higher average values compared to general repurchases. The composition of total payout refers to the different payout methods that contributed to total payout. The investigation of the frequency of payout methods selected – and whether companies elected one or more payout methods – would provide supporting evidence on payout behaviour of companies during the pre-2012 and post-2012 period. The frequency of electing only one payout method or more than one method is provided in Table 7.3.

Table 7.3

Frequency of electing only one payout method or more than one payout method

Description	Frequency of electing:		Movement in frequency
	Pre-2012	Post-2012	
Only ordinary dividends	306	298	-2.61%
Only special dividends	5	3	-40.00%
Only capital distributions	32	10	-68.75%
Only additional shares	0	0	-
Only specific repurchases not from subsidiaries	3	1	-66.67%
Only specific repurchases from subsidiaries	1	1	-
Only general repurchases	17	27	58.82%
More than one method elected	299	340	13.71%
Total frequency of electing payout methods	**663**	**680**	-

Note. Sourced from Nel and Wesson (2021).

The frequency of electing only one payout method decreased for most of the payout methods during the post-2012 period and the election of more than one payout method increased. Electing only ordinary dividends was the single payout used most during both the pre-2012 and post-2012 periods. Total payout during the post-2012 period was not focused on the use of only one payout method, but focused more on the use of a combination of payout methods. On this premise, the composition of payout is submitted to have changed in frequency after 2012 dependent on whether one or more than one payout method was elected.

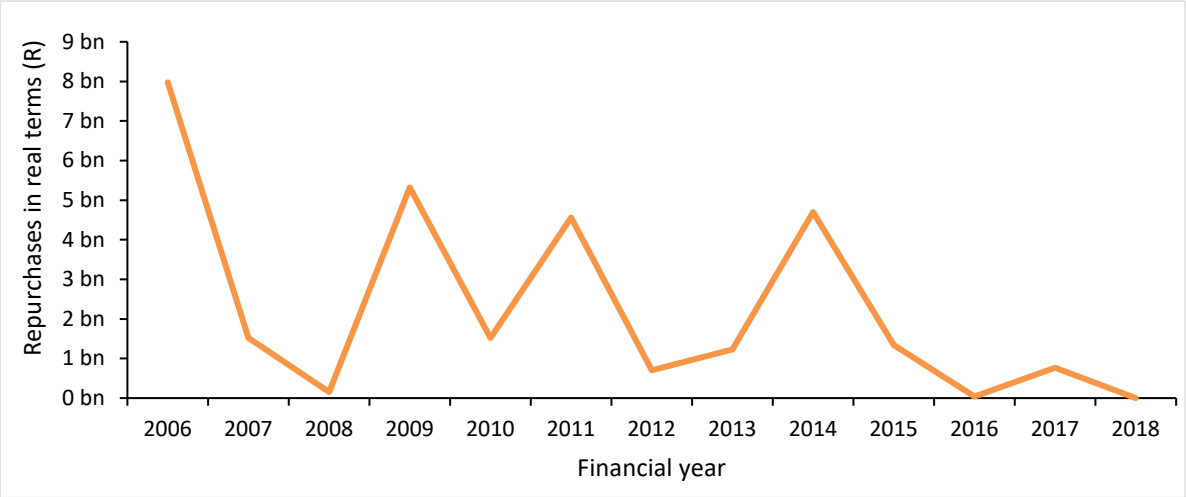
The only increase in the frequency of electing one payout method was in respect of general repurchases. Despite the increase of 58.8% in electing only general repurchases, the value of general repurchases decreased by 56.7% (Table 7.2), which could suggest that although general repurchases were applied more frequently as the only payout method post-2012, the value of payout returned as general repurchases decreased. An increase in the frequency could be explained by the flexibility of share repurchases, which could entail companies rather repurchasing shares in smaller values instead of paying dividends in periods of low economic growth. The decrease in the value of general repurchases is, however, still submitted as indicative of the trend and composition of payout over the period, as it represents the value distributed to investors as a payout method.

Based on descriptive statistics, an increase in the value of ordinary dividends was evident for the post-2012 period, with no corresponding increase in the value of payout methods other than dividends (except for additional shares) noted for the same period. The two most notable decreases in the value of payout methods according to Table 7.2 related to capital distributions (decrease of 83.50%) and specific repurchases from subsidiaries (decrease of 61.60%). Specific repurchases from subsidiaries as payout method are the subject of a proposition of the present study (proposition 4).

Proposition 4 posits that specific repurchases from subsidiaries during 2011 would be lower, if compared to other periods, pending the introduction of dividends tax. The annual specific repurchases from subsidiaries (Figure 7.3) were examined to conclude on support for proposition 4.

Figure 7.3

Value of annual specific repurchases from subsidiaries in real terms



From the trend in value depicted in Figure 7.3, 2006 is observed as having the highest value and is an outlier in terms of value compared to other years. Specific repurchases from subsidiaries during 2011 were expected to be lower, when compared to other periods, pending the introduction of dividends tax (Table 3.3). Based on the value of specific repurchases, an increase in value was observed during 2011 compared to lower values in 2010 and 2012, contrary to an expected decrease in terms of proposition 4. This finding results in no support being submitted for proposition 4 and could suggest motivations, other than tax, for specific repurchases from subsidiaries. Motivations, other than tax, for specific repurchases from subsidiaries could include the flexibility afforded by treasury shares in the management of the capital structure of companies (Cassim, 2010).

In conclusion, descriptive statistics suggest a change in the value and frequency of electing different payout methods during the post-2012 period. An increase in the value of ordinary dividends is evident for the post-2012 period, with no corresponding increase in the value of payout methods other than ordinary dividends (Figure 7.1). Payout methods other than ordinary dividends, except for additional shares, were noted to have decreased during the post-2012 period (Figure 7.2). The statistical significance of the movement in values was considered by means of a mixed-model ANOVA in the section which follows.

7.3 ANALYSIS OF VARIANCE IN RESPECT OF THE TREND IN PAYOUT METHODS

The statistical ANOVA was concerned with the means of the variables of the payout methods (values in real terms), retention rates, and ROA of selected companies. The analysis was performed to investigate whether the means of each variable differed significantly during the target period of the study (2006 to 2018) and between the two sub-periods of pre-2012 and post-2012. A Fisher's LSD post-hoc test was employed to analyse whether the two sub-periods differed significantly by comparing the mean of each variable for each period. A precondition for the Fisher's LSD test to be performed was that the ANOVA omnibus F-test should be significant (Williams & Abdi, 2010, p. 1). The ANOVA omnibus F-test was performed in respect of all financial years considered in this study (2006 to 2018). The results are provided in Table 7.4.

Table 7.4

Analysis of variance – Payout methods

Variables	*SS*	*MS*	*df*	*F statistic*	*P-value*
Ordinary dividends	2 909.55	1 454.77	1 341.52	3.73	0.02**
Payout other than ordinary dividends	8.92	4.46	1 342.45	0.33	0.72
Special dividends	0.02	0.01	1 344.50	0.88	0.42
Capital distributions	7.31	3.66	1 342.56	34.37	<0.01***
Additional shares	0.01	0.01	1 345.15	4.20	0.02**
Specific repurchases not from subsidiaries	0.26	0.13	1 345.92	2.60	0.07*
Specific repurchases from subsidiaries	0.05	0.02	1 344.18	2.00	0.14
General repurchases	6.18	3.09	1 342.21	1.14	0.32
Retention rate %	5 870.14	2 935.07	1 327.92	3.78	0.02**
ROA %	8 484.04	4 242.02	1 326.32	63.90	0.01***

Note. Sourced from Nel and Wesson (2021). The mean payout methods and financial ratios were Box-Cox transformed and variables described by the sum of squares (*SS*), the mean square (*MS*), and the degrees of freedom (*df*).

** p < .10, ** p < .05, *** p < .01.*

The ANOVA confirmed a statistically significant movement in ordinary dividends over the period 2006 to 2018 ($F(2, 1342) = 3.73$, $p = .02$). When payout methods other than ordinary dividends were aggregated, no statistically significant movement over the same period was observed. Payout methods other than ordinary dividends should, however, be disaggregated and the movement in the respective payout methods considered for purposes of the precondition of the LSD post-hoc test.

The precondition of the LSD post-hoc test was not met for special dividends, specific repurchases from subsidiaries, and general repurchases, as the ANOVA indicated no statistically significant movement over the different periods. The notable decrease in the value of special dividends, specific repurchases from subsidiaries, and general repurchases (Figure 7.2) is thus not submitted as statistically significant in terms of the ANOVA. The precondition of the LSD post-hoc test was met for other payout methods (ordinary dividends, capital distributions, additional shares, specific repurchases not from subsidiaries, retention rates and ROA), the results of which are provided in Table 7.5.

Table 7.5

Fisher's least significant difference post-hoc test – Payout methods

Variables	Pre-2012:		Post-2012:		LSD post-hoc:	
	M	*SD*	*M*	*SD*	*M diff.*	*P-value*
Ordinary dividends	45.48	2.31	47.88	2.31	2.40	0.03**
Capital distributions	0.19	0.02	0.04	0.02	-0.15	<0.01***
Additional shares	0.00	0.00	0.00	0.00	0.00	<0.01***
Specific repurchases not from subsidiaries	0.04	0.01	0.07	0.01	0.02	0.09*
Retention rate %	70.76	1.99	66.60	1.98	-4.16	<0.01***
ROA %	14.15	0.69	9.08	0.69	-5.08	<0.01***

Note. Sourced from Nel and Wesson (2021). Descriptive statistics in respect of variables represented by the mean (*M*) and standard deviation (*SD*). The mean difference (*M diff.*) is the subject of the LSD post-hoc test.
** p < .10, ** p < .05, *** p < .01.*

Based on the LSD post-hoc test, the mean value of ordinary dividends, additional shares, and specific repurchases not from subsidiaries was significantly higher during the post-2012 period, whereas the mean value of capital distributions was significantly lower during the post-2012 period.

The mean retention rates and ROA of companies were also found to be significantly lower during the post-2012 period. The lower retention rates during the post-2012 period could have been expected owing to the higher ordinary dividends noted for the post-2012 period. Based on higher ordinary dividends during the post-2012 period, higher profitability was to be expected; however, based on ROA, lower profitability was noted during the post-2012 period. On this premise, profitability is not submitted as the main confounding factor for the increase in ordinary dividends during the post-2012 period, consequently providing an opportunity for the argument of a possible tax explanation for the increase in ordinary dividends.

7.4 CONCLUSION

The trend and composition of payout during the post-2012 period were expected to differ from the pre-2012 period, based on propositions informed by tax reform (Chapter 3) and after-tax values (Chapter 5). In this chapter, support for propositions is submitted as indicative that the trend and composition of total payout of selected JSE-listed companies differed during the post-2012 period. The increased frequency of electing more than one payout method during the post-2012 period suggests more diverse payout methods being utilised. The trend in the value of payout methods, however, showed that total payout was dominated by ordinary dividends which increased during the post-2012 period, whereas payout methods other than ordinary dividends (except additional shares) did not show comparable increases. The results arrived at in this chapter were used to conclude on support for proposition 2 to proposition 7 (propositions submitted in Table 3.3 and Table 5.6).

Proposition 2 in respect of ordinary dividends is supported as a statistically significant increase in value and an increase in the frequency of election was observed during the post-2012 period. Retention rates were accordingly also found to be statistically significantly lower during the post-2012 period in line with higher dividends during the same period. Contrary to expectation, special dividends not linked to unbundling transactions were found not to have increased during the post-2012 period. A possible explanation could be that share repurchases could have been utilised as a more flexible option than special dividends during this period to distribute transitory earnings. Higher ordinary dividends during the post-2012 period would suggest higher profitability; however, lower profitability was noted during the period. Profitability is thus excluded as the main confounding factor for increased dividends during the post-2012 period.

Proposition 3 in respect of capital distributions is supported as a statistically significant decrease in value and a decrease in the frequency of electing capital distributions were observed during the post-2012 period. Capital distributions, indicated as a reduction CTC, would not constitute dividends resulting in capital gains tax for the investor if shares were held with capital intent. Increases in the applicable tax rates adversely affected the tax preference for a payout method subjected to capital gains tax since 2012 (Nel, 2018). The decrease in capital distributions noted in this study is submitted as evidence of the payout policies of companies which were adjusted as a result of the differential tax of dividends and capital gains.

Proposition 4 in respect of specific repurchases from subsidiaries is not supported as no decrease in the value of such repurchases was observed during 2011 (Figure 7.3). This finding suggested reasons, other than tax, for specific repurchases from subsidiaries. Wesson and Hamman (2012, p. 35) also

found that specific repurchases from subsidiaries occurred despite potential adverse tax consequences. One reason, other than tax, could have been the flexibility afforded by treasury shares in the management of the capital structure of companies (Cassim, 2010).

Proposition 5 in respect of general repurchases is not supported as no statistically significant decrease in value during the post-2012 period was observed. The decrease in the value of general repurchases post-2012 based on descriptive statistics (Table 7.2) was not found to be statistically significant and the frequency of electing general repurchases increased post-2012. The increase in the frequency of general repurchases post-2012 could also explain the observed decrease in the frequency of electing special dividends to distribute transitory earnings during the post-2012 period.

Proposition 6 in respect of specific repurchases is only supported for specific repurchases, not from subsidiaries as a statistically significant increase in value and an increase in the frequency of election was observed during the post-2012 period. Specific repurchases from subsidiaries during the post-2012 period did not increase significantly, despite the dividends tax exemption afforded, which could further suggest motivations other than tax for entering into specific repurchases from subsidiaries.

Proposition 7 in respect of additional shares issued as scrip dividends is supported as a statistically significant increase in value and an increase in the frequency of election were observed during the post-2012 period. Despite the value of additional shares as a payout method being relatively low compared to other payout methods (Figure 7.2), the observed increase could provide potential insight in respect of a payout method that empowered investors. The increased value and frequency of electing scrip dividends during the post-2012 could suggest an initiative by companies to empower investors with the choice since the introduction of dividends tax.

The policy implication of the study presented in this chapter is that the increasing use of ordinary dividends as a payout method and a decrease in the use of other payout methods could inform future tax reform initiatives to generate revenue or stimulate growth using tax incentives. In the light of the increasing use of ordinary dividends, any further increases in the rate of dividends tax would perhaps not be advisable since investors that do not qualify for dividends tax exemption could be discouraged from investing in South African companies.

Two areas for further research are also submitted on the basis of this chapter. Firstly, as the payout of companies over a period was investigated, companies would have matured over time and, in terms of the company life-cycle theory, more mature companies could be associated with higher dividends

(DeAngelo et al., 2006, p. 253). The company life-cycle theory was not explored in the present study and is submitted as a potential area for further research. Secondly, the descriptive findings of this chapter emphasised the opportunity for further explanatory research into the effect of investor-level tax reform on payout policies. In Chapter 8 explanatory empirical research was performed which included reference to the shareholding of companies and the extent to which the respective tax preferences of different investors explained changes in payout methods.

CHAPTER 8: INVESTOR TAX PREFERENCE PARAMETERS AND PAYOUT METHODS

8.1 INTRODUCTION

The fourth research objective of this study was pursued in this chapter by investigating the relationship between changes in payout methods and changes in investor tax preference parameters since the introduction of dividends tax. The financial years from 2012 to 2019 of selected companies were considered (Figure 4.1). The trend and composition of payout from 2006 to 2018, investigated in Chapter 7, revealed an increase in dividends accompanied by a decrease in other payout methods during the post-2012 period. The question which emanates from the descriptive findings of Chapter 7 is whether the differential of tax on dividends and capital gains tax explain changes in payout methods. In order to investigate the relationship between changes in investor tax preference parameters and changes in payout, the data collection of Chapter 7 was expanded to include the 2019 financial years of companies. The aim of this chapter was to investigate the extent to which investor tax preference parameters (of individuals, corporates, and institutions) explain changes in payout methods. The results arrived at in this chapter were used to draw a conclusion on support for proposition 8 submitted in a previous chapter (Table 5.6). Proposition 8 is based on the magnitude of tax reform and ownership as recurring themes (Figure 2.2). Ownership as a recurring theme is considered by the inclusion of investor tax preference parameters which incorporate both changes in tax rates over a period as well as a distinction between different categories of investors.

Explanatory evidence suggests that JSE-listed companies with higher corporate shareholding increased dividends significantly faster than other companies based on the dividend growth during 2012 and 2013 (Badenhorst, 2017). This implies that corporate investors could have sufficient influence to align the dividend policies of companies in which shares are held with their tax preferences owing to the size of their holdings, or it merely reflects that corporate investors tend to be better at organised lobbying than individuals (Badenhorst, 2017). The study of Badenhorst (2017), however, did not include specific consideration of how the supply of dividends is affected by the differential between dividends tax and capital gains tax. The investigation of how the supply of dividends is affected by the differential taxation of dividends versus capital gains has been indicated as a promising avenue for research (Farre-Mensa et al. 2014, p. 103). Investor tax preference parameters incorporate both the tax on dividends and capital gains and have been employed in investigating the effect of taxes on payout policies in other studies (Geiler & Renneboog, 2015; Poterba, 2004).

The South African tax reform setting provides an opportunity to incorporate investor tax preference parameters in order to provide explanatory evidence in literature on how the supply of dividends is affected by the differential between dividends tax and capital gains tax. The proposition submitted on the basis of tax reform and after-tax values is that changes in the investor tax preference parameters of corporates would explain changes in payout methods more than other investor tax preference parameters considered (proposition 8 in Table 5.6). The study conducted in this chapter expands on existing literature in three respects. Firstly, this is the first South African study to include consideration of investor tax preference parameters, which incorporate both dividends tax and capital gains tax, for different categories of investors. Secondly, a point of differentiation from other South African studies is the fact that investor tax preference parameters are hand-collected in the present study and are not available on any public database. This point of differentiation could provide an opportunity for triangulation (Smith, 2020) and could facilitate further research. Thirdly, this study includes consideration of ownership concentration and institutional shareholding in investigating the tax effect on payout policies.

Investor tax preference parameters (Equation 2.2 as detailed under section 2.10) are calculated as a function of dividend tax preference parameters (Equation 2.1 as detailed under section 2.10) and shareholding. This chapter proceeds by describing the data in respect of the two components of investor tax preference parameters (calculated dividend tax preference parameters and shareholding data collected). Based on the two components, investor tax preference parameters were then calculated for inclusion in regression analyses. Regression analyses performed in terms of the methods described in detail in Chapter 4 entailed both OLS and quantile regressions. Investor tax preference parameters were calculated based on registered and beneficial shareholding as a distinction could provide differing insights into the effect of the differential treatment of dividends tax and capital gains tax since these types of shareholding differ in nature (as discussed in section 2.10.1). Regression results in respect of the relationship between investor tax preference parameters and payout methods were also presented respectively for dividends and payout other than dividends. A discussion of results commenced with the expected relationship between variables followed by descriptive statistics as a precursor to the regression results. Prior to concluding this chapter, consideration is also given to the director as the top shareholder in companies. Higher insider ownership (directors and officers) has been found to elicit a more notable response to taxes if the tax rate of dividends and capital gains differ (Jacob & Jacob, 2013). An insider investor with sufficient power could thus influence the dividends paid by companies to minimise their tax liability (Holmen et al., 2008; Krupa & Utke, 2020, p. 34), which merits investigation of the director as the top shareholder.

The following structure is accordingly applied in this chapter:

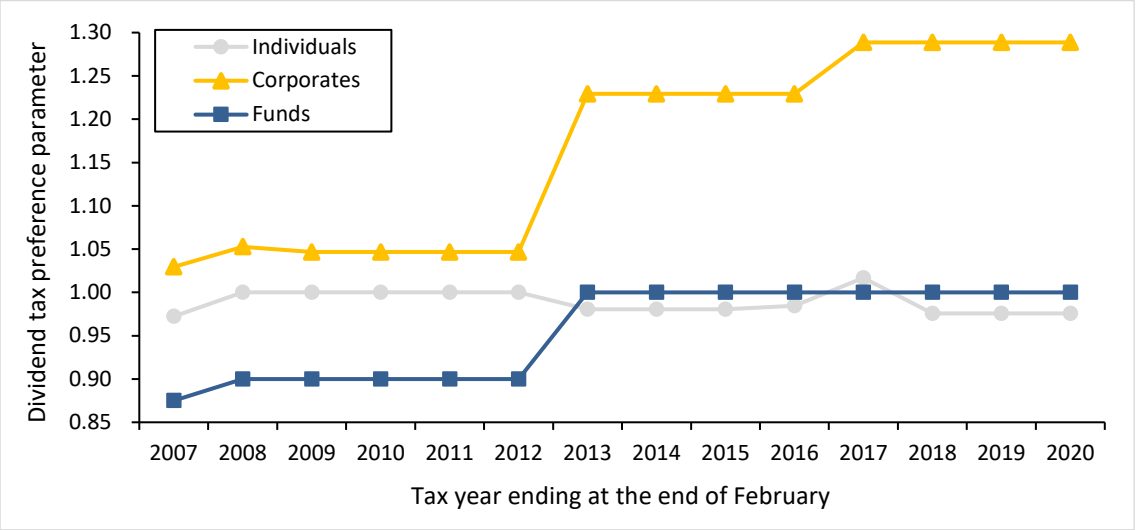
- Dividend tax preference parameters
- Shareholding data collected
- Investor tax preference parameters and dividends
- Investor tax preference parameters and other payout methods
- Consideration of the director as the top shareholder
- Overall conclusion in respect of main findings of this chapter

8.2 DIVIDEND TAX PREFERENCE PARAMETERS

Dividend tax preference parameters are based solely on tax rates and depict the preference for dividends tax relative to capital gains tax (Equation 2.1). Calculated dividend tax preference parameters are illustrated in Figure 8.1 for tax years of assessment from 2007 to 2020 in order to emphasise changes in dividend tax preference parameters since the introduction of dividends tax during 2012 and to extend to the end of the target period of the fourth research objective.

Figure 8.1

Dividend tax preference parameters



Note. The graph depicts the preference for dividends tax relative to capital gains tax calculated as $(1 - \tau_{div})/(1 - \tau_{cg})$. Individuals are represented by higher-rate individuals to demonstrate the maximum differential between taxes for individuals. Funds represent institutions as the investor category of interest in the present study.

Compared to the period prior to the introduction of dividends tax (February 2012 and earlier), an increase in the dividend tax preference parameters of corporate and fund investors is observable since the introduction of dividends tax as a result of an exemption from dividends tax afforded.

The highest increase in dividend tax preference parameters related to corporate investors since the introduction of dividends tax which is further enunciated as a result of increases in the effective rate of capital gains tax during 2013 and 2017. Increases in applicable tax rates also resulted in the after-tax values of different payout methods of corporate investors being most affected, compared to individuals and institutions (represented by funds), which further emphasised the tax preference for dividends. Calculated dividend tax preference parameters enunciated the proposition that changes in the investor tax preference parameters of corporates would explain changes in payout methods more than other investor tax preference parameters considered (proposition 8).

Individual investors taxed at the highest normal tax rates had only a marginal dividend tax preference during 2017, with a marginal preference for capital gains tax above dividends tax noted for other years since the introduction of dividends tax. The bird-in-the-hand theory posits that investors could prefer the certainty of dividend payments to the possibility of substantially higher future capital gains (Baker & Weigand, 2015, p. 133). Individual investors could, in terms of the bird-in-the-hand theory, prefer dividends despite the marginal higher taxes resulting from the immediate cash flows. Shares held by employees (individual investors) could also increase the likelihood of dividends being paid as executive compensation on unvested restricted shares awarded (Minnick & Rosenthal, 2014). Insider ownership (directors and officers) with sufficient power could further influence the dividends paid by companies to minimise their tax liability (Holmen et al., 2008; Krupa & Utke, 2020, p. 34). The investor tax preference parameters of individuals could accordingly still be positively related to dividend payout despite the marginal tax preference for capital gains tax observed in Figure 8.1.

Fund investors (institutional investors as defined by the JSE (2016)) would have been tax neutral since the introduction of dividends tax because of an exemption from dividends tax and capital gains tax being afforded. Where institutional investors are the majority investors, a tax explanation for a positive relationship between dividend distribution and ownership concentration because of dividend preference has been found (Short et al., 2002). Institutional investors could also improve large companies' propensity to pay dividends (Jacob & Lukose, 2018, p. 54S). Dividend-paying companies could be expected to have higher institutional ownership and to keep paying dividends to retain their institutional investor clientele owing to the monitoring role of institutional investors (Jacob & Lukose, 2018, p. 57S). The investor tax preference parameters of institutions could therefore still be positively related to dividend payout despite the tax-neutral position since the introduction of dividends tax (Figure 8.1).

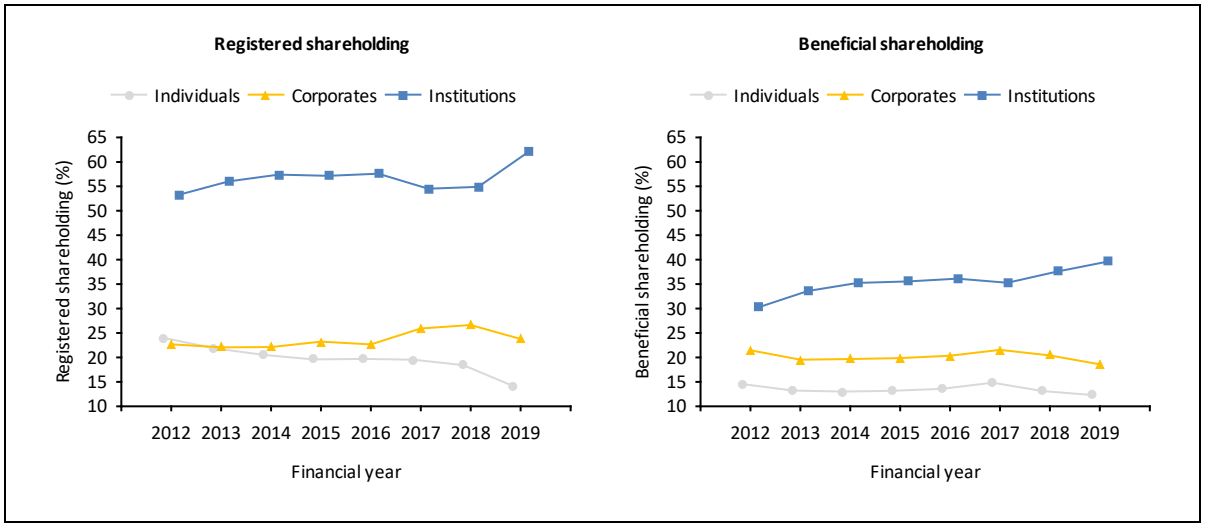
8.3 SHAREHOLDING DATA COLLECTED

The shareholding data collected pertained to four levels of shareholding, ranging from overall shareholding (registered shareholding) to the largest shareholder (Figure 4.2). A distinction between registered shareholding and beneficial shareholding was also made, resulting in the data analysis being performed for registered shareholding and beneficial shareholding. Based on the population of this study, sampling was applied as detailed in section 4.8.3 which resulted in 74 companies being included based on registered shareholding and 110 companies being included based on beneficial shareholding.

The shareholding data collected are described in terms of the trend in the percentage shareholding of each category (individuals, corporates, and institutions) and by means of descriptive statistics. The mean percentage shareholding data collected for each of the categories of shareholders over the target period of the fourth research objective from 2012 to 2019 are illustrated in Figure 8.2.

Figure 8.2

Shareholding data collected



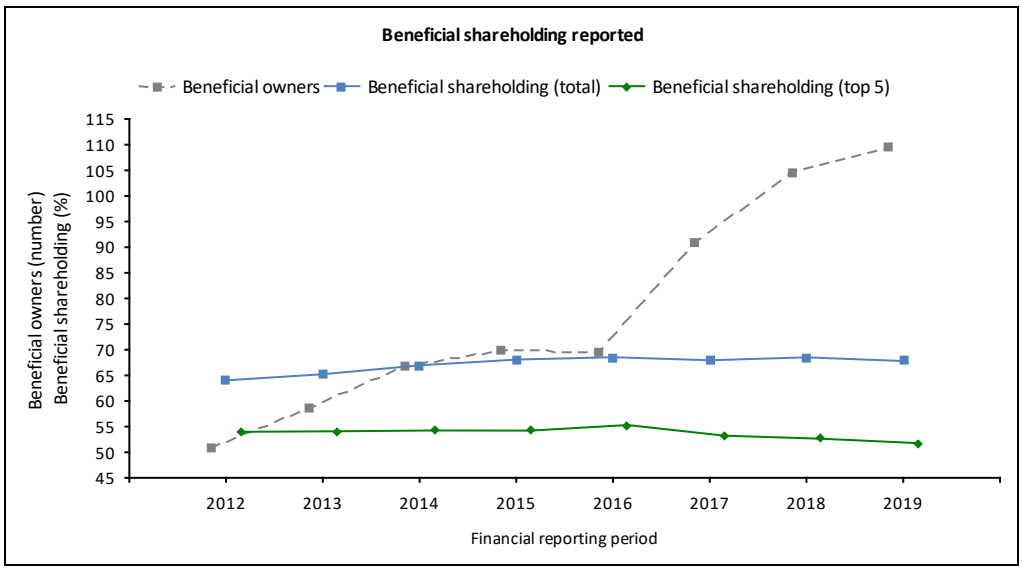
Not all registered shareholders are obligated to report beneficial shareholding, as reporting is only required for shareholding exceeding thresholds (three percent or five percent). Accordingly, beneficial shareholding cannot exceed registered shareholding, and descriptive statistics in Figure 8.2 confirm that beneficial shareholding did not exceed registered shareholding. Fund shareholders (institutional shareholders) have been noted as accounting for the majority of the overall volume of shareholding on the JSE in South Africa (JSE, 2016). The descriptive statistics in Figure 8.2 also confirm that, for the companies selected, the mean registered shareholding of institutions constituted the majority of shareholding.

Ownership structures tend to be relatively stable over shorter periods of time (Badenhorst, 2017, p. 4). Descriptive statistics over a longer period in this study suggested changes in ownership structures. Registered shareholding of individuals decreased since 2013, accompanied by an increase in corporate shareholding since 2013, which could suggest individual shareholders opting to invest through other companies rather than in their own capacity since 2013. Beneficial shareholding of corporates and individuals were observed as more stable than registered shareholding over the period. Beneficial shareholding could be explained as more stable than registered shareholding since it represented strategic shareholders to a greater extent. Strategic shareholders could obtain shares for strategic reasons, such as acquiring control, which implies more long-term holdings or stable holdings compared to speculating with shares over the short term. Strategic shareholders that acquired control would imply substantial shareholding being acquired which, in turn, could result in shareholding exceeding the threshold (three percent or five percent) for reporting as beneficial shareholding.

Despite beneficial shareholding being observed as more stable than registered shareholding over the period, a change in the trend of beneficial ownership was evident. Beneficial shareholding of institutions notably increased since 2018, accompanied by a decrease in corporate and individual shareholding, which could suggest that corporate and individual beneficial shareholders invested through institutions since 2018 rather than in own capacity. As beneficial shareholding is dependent on reporting, a change in the reporting requirements was considered by investigating the number of beneficial owners, total percentage, and top five shareholders percentage reported (Figure 8.3).

Figure 8.3

Trend in number of shareholders and percentage beneficial shareholding reported



The mean total percentage beneficial shareholding reported did not increase or decrease notably during the period, which suggested that the overall reporting of selected companies did not notably fluctuate over the period considered. Consequently, the increase in beneficial shareholding observed in Figure 8.2 is not submitted as the result of increased overall reporting by shareholders. A notable increase in the number of beneficial owners since 2017 and a decrease in the percentage reported by the top five shareholders could be indicative of lower ownership concentration since 2017 based on beneficial shareholding. The increase in the number of beneficial owners reported since 2017 coincided with regulation aimed at increasing financial transparency (as discussed in section 2.10.1). An increase in the number of beneficial owners reported could promote financial transparency as the identity of more beneficial owners would have been known. The increase in beneficial shareholding of institutions since 2017 accompanied by a decrease in corporate and individual shareholding (Figure 8.2) could, however, hinder financial transparency. Owing to the complexity and confidentiality provisions relating to investing through institutions, establishing the true identity of underlying beneficial shareholders could be a daunting challenge (Johnston, 2019, p. 13).

The descriptive statistics in respect of shareholding data collected are provided in Table 8.1.

Table 8.1

Descriptive statistics – Shareholding data collected

Description	Registered Shareholding:				Beneficial Shareholding:			
	N	*M*	*Mdn*	*SD*	*N*	*M*	*Mdn*	*SD*
				Shareholding				
Individuals	482	19.965	13.478	19.573	739	13.520	4.948	19.426
Corporates	482	23.575	11.160	24.501	739	20.228	8.703	25.982
Institutions	482	56.469	61.000	26.884	739	35.227	34.108	25.401
				Directors' shareholding				
Disclosed holdings	480	12.668	1.515	18.345				
Direct holdings	480	3.989	0.400	8.071				
Indirect holdings	357	11.769	2.347	16.814				

Note. Descriptive statistics in respect of shareholding data are presented in this table by the number of company-year observations (*N*), the mean (*M*), the median (*Mdn*), and the standard deviation (*SD*) of data. Directors' shareholding as disclosed in annual financial statements with the direct holdings included in the individuals' category of shareholding and indirect holdings included in the corporates' category of shareholding.

Shareholding data for the three categories (individuals, corporates, and institutions) were dispersed on the basis of the standard deviations, with the shareholding data of individuals being noted as the least dispersed of all three categories. The mean direct holdings of directors represented 19.98% of mean shareholding of individuals (3.99/19.97) which emphasised the importance of directors as individual shareholders in companies. Further consideration of directors as the top individual shareholder in companies was provided in section 8.6 of this chapter.

The shareholding data would inform the investor tax preference parameters calculated as variable, and the findings in respect of investor tax preference parameters based on registered and beneficial shareholding were not expected to be corroborative in all respects. Findings in respect of profitability and past dividends were expected to be corroborative; however, findings in respect of investor tax preference parameters could differ between registered and beneficial shareholding. Corporate shareholders could invest for strategic reasons, resulting in dividend policy that was, at best, expected to be a second-order consideration (Desai & Jin, 2011, p. 79).

This chapter proceeds with a discussion of the results in respect of the relationship between investor tax preference parameters and payout methods (dividends and payout other than dividends).

8.4 INVESTOR TAX PREFERENCE PARAMETERS AND DIVIDENDS

In investigating the relationship between dividends and investor tax preference parameters (Equation 4.2), the dependent variable was the change in the natural log of annual dividends ($\Delta \ln Div_{it}$). Annual ordinary dividends and annual total dividends (ordinary dividends and special dividends) were respectively considered as dependent variables.

The first explanatory variable referred to the change in the natural log of profits ($\Delta \ln ROA_{it}$). More profitable companies, based on ROA, were found consistently to pay higher dividends in previous studies (Badenhorst, 2017, p. 7; Nyere & Wesson, 2019, p. 13). A positive relationship between changes in dividends and changes in profits was accordingly expected.

The second category of explanatory variables referred to the change in the natural log of investor tax preference parameters ($\Delta \ln \theta_{Individuals,it}$, $\Delta \ln \theta_{Corporates,it}$, and $\Delta \ln \theta_{Institutions,it}$). The calculation of investor tax preference parameters (Equation 2.2) was a function of dividend tax preference parameters and shareholding. The expected relationships between changes in dividends and changes in investor tax preference parameters were informed by the applicable tax rates on dividends and capital gains. An increase in the dividends tax rate would decrease investor tax preference parameters if the effective rate of capital gains tax remained unchanged. Conversely, an increase in the effective rate of

capital gains tax would increase investor tax preference parameters if the dividends tax rate remained unchanged. As investor tax preference parameters depicted the preference for dividends relative to capital gains tax, a positive relationship with dividends was expected.

The third category of explanatory variables referred to the lagged levels of the natural log of annual dividends (ln Div_{it-1}) and the lagged levels of the natural log of profits (ln ROA_{it-1}). The lagged level of dividend payout was found to be highly predictive but negatively related to changes in dividend payout in previous studies (Geiler & Renneboog, 2015, p. 196; Poterba, 2004, p. 4). In line with previous studies, a negative relationship between dividends and the lagged levels of dividends was expected. The lagged levels of profits indicated past profitability which was expected to have influenced past dividends; however, which could also have informed current changes in dividends to the extent that past profits were not distributed but retained for future expansions or dividends. Accordingly, a positive relationship between dividends and lagged levels of profits was expected.

The fourth category of explanatory variables referred to the lagged levels of the natural log of investor tax preference parameters (ln $\theta_{Individuals,it-1}$, ln $\theta_{Corporates,it-1}$, and ln $\theta_{Institutions,it-1}$). Unlike past profitability, which could be expected to affect future dividends, past investor tax preference parameters were not expected to affect current changes in dividends. Geiler and Renneboog (2015) also did not find lagged levels of investor tax preference parameters as significant explanatory variables. In respect of the lagged levels of investor tax preference parameters, no specific relationship was expected.

The fifth category of explanatory variables referred to ownership concentration dummy variables. High ownership concentration based on the Herfindahl index and the presence of a top shareholder per category (individual, corporate, or institution) were considered as variables (section 4.8.2.4). High ownership concentration could be associated with higher or lower dividend payout, depending on the opposing hypotheses – the monitoring hypothesis or the rent extraction hypothesis (Harada & Nguyen, 2011, p. 376). Based on the Herfindahl index, support for one of the opposing hypotheses was investigated based on either a positive or negative relationship. The expected relationship of top shareholder and changes in dividends depended on the category of top shareholder. A top individual shareholder was expected to have a negative relationship with changes in dividends owing to lower tax preferences for dividends for all years from 2013 except for 2017 (Figure 8.1). A top corporate shareholder and a top institution shareholder were expected to have a positive relationship with changes in dividends owing to tax preferences for dividends.

In conclusion, the expected relationships between the dependent variable (changes in dividends) and each explanatory variable are summarised in Table 8.2.

Table 8.2

Variables – Dividends and investor tax preference parameters

Variable	Description	Expected relationship
	Dependent variable	
$\Delta \ln Div_{it}$	Change in the natural log of annual dividends	Not applicable
	Explanatory variables	
$\Delta \ln ROA_{it}$	Change in the natural log of profits	Positive (+)
$\Delta \ln \theta_{Individuals,it}$	Change in the natural log of individual tax preference parameters	Positive (+)
$\Delta \ln \theta_{Corporates,it}$	Change in the natural log of corporate tax preference parameters	Positive (+)
$\Delta \ln \theta_{Institutions,it}$	Change in the natural log of institution tax preference parameters	Positive (+)
$\ln Div_{it-1}$	Lagged levels of annual dividends	Negative (-)
$\ln ROA_{it-1}$	Lagged levels of profits	Positive (+)
$\ln \theta_{Individuals,it-1}$	Lagged levels of individual tax preference parameters	None
$\ln \theta_{Corporates,it-1}$	Lagged levels of corporate tax preference parameters	None
$\ln \theta_{Institutions,it-1}$	Lagged levels of institution tax preference parameters	None
	Dummy variables as explanatory variables	
High concentration	High ownership concentration based on Herfindahl index	Positive (+) or Negative (-)
Top individual	Top shareholder is an individual	Negative (-)
Top corporate	Top shareholder is a corporate	Positive (+)
Top institution	Top shareholder is an institution	Positive (+)

Note. Data collection and data sources of variables are summarised in Table 4.4.

A positive relationship was therefore expected between changes in dividends and all explanatory variables, except for lagged levels of dividends, high ownership concentration, and top individual shareholder. A negative relationship was expected between changes in dividends and the lagged levels of dividends, high ownership concentration, and top individual shareholder.

8.4.1 Descriptive statistics: Dividends and investor tax preference parameters

The descriptive statistics of transformed variables are provided in Table 8.3. The descriptive statistics depict changes in log transformed variables and the lagged levels of variables.

Table 8.3

Descriptive statistics – Dividends and investor tax preference parameters

Description	Registered shareholding:			Beneficial shareholding:		
	M	*Mdn*	*SD*	*M*	*Mdn*	*SD*
$\Delta \ln Div_{it}$ (ordinary dividend)	-0.279	0.039	5.423	-0.132	0.065	5.005
$\Delta \ln Div_{it}$ (total dividend)	-0.327	0.033	5.508	-0.159	0.064	5.067
$\Delta \ln ROA_{it}$	-0.083	-0.033	0.632	-0.075	-0.027	0.588
$\Delta \ln \theta_{Individuals,it}$	-0.052	-0.028	0.304	-0.008	0.001	0.463
$\Delta \ln \theta_{Corporates,it}$	0.019	0.007	0.551	-0.027	0.001	0.694
$\Delta \ln \theta_{Institutions,it}$	0.035	0.010	0.357	0.067	0.043	0.483
$\ln Div_{it-1}$ (ordinary dividend)	14.790	18.257	7.813	15.610	18.426	7.284
$\ln Div_{it-1}$ (total dividend)	14.857	18.311	7.803	15.655	18.444	7.272
$\ln ROA_{it-1}$	2.377	2.448	0.709	2.385	2.436	0.687
$\ln \theta_{Individuals,it-1}$	2.683	2.716	0.931	1.768	1.779	1.423
$\ln \theta_{Corporates,it-1}$	2.757	2.725	1.242	2.147	2.427	1.732
$\ln \theta_{Institutions,it-1}$	3.818	4.040	0.800	3.034	3.496	1.275

Note. Descriptive statistics in respect of regression variables are presented in this table by the mean (*M*), the median (*Mdn*), and the standard deviation (*SD*) of variables.

Based on the data collected the assumptions of regression analysis were tested. The Durbin-Watson statistics approximated two for registered shareholding (d-value of 1.83) and beneficial shareholding (d-value of 1.86) as evidence of no autocorrelation of variables. The variance inflation factor of variables, other than 'top institution', ranged from 1.09 to 3.27 and indicated no multicollinearity between independent variables. The variance inflation factor of 'top institution' was found to be collinear and was excluded for purposes of data analysis. The Breusch-Pagan test was performed in respect of heteroscedasticity with the results found to be significant for registered shareholding (BP=24.02, df=12, p=0.02) and beneficial shareholding (BP=44.05, df=12, p<0.01), indicating the need to adapt regression results for heteroscedasticity. The necessary assumptions for performing OLS regressions were accordingly considered.

Based on OLS regression analyses, the hypotheses tested were whether an independent variable had no effect in explaining changes in payout (null hypothesis) or whether an independent variable had an effect on explaining changes in payout (alternative hypothesis). The OLS regression results are presented in the section which follows.

8.4.2 Regression results: Dividends and investor tax preference parameters

The regression results estimated for Equation 4.2 with changes in annual dividends (Δ ln Dividends), ordinary dividends and total dividends respectively, as the dependent variable are provided in Table 8.4 based on registered shareholding and beneficial shareholding. Regression results were adapted for heteroscedasticity and variables winsorised in terms of the method detailed in section 4.8.4.

Table 8.4

Regression results – Dividends and investor tax preference parameters

Description	Registered shareholding:		Beneficial shareholding:	
	Ordinary dividends	Total dividends	Ordinary dividends	Total dividends
Intercept	-0.618	-0.709	-0.009	-0.030
	(0.231)	(0.263)	(0.113)	(0.126)
Δ ln ROA_{it}	0.335***	0.379***	0.359***	0.396***
	(0.081)	(0.092)	(0.059)	(0.065)
Δ ln $\theta_{Individuals,it}$	0.319*	0.393**	0.148*	0.145
	(0.167)	(0.184)	(0.085)	(0.096)
Δ ln $\theta_{Corporates,it}$	0.285***	0.335***	0.063	0.089
	(0.098)	(0.105)	(0.067)	(0.073)
Δ ln $\theta_{Institutions,it}$	0.436*	0.581**	0.015	0.029
	(0.254)	(0.282)	(0.069)	(0.075)
ln Div_{it-1}	-0.024***	-0.029***	-0.017***	-0.019***
	(0.004)	(0.005)	(0.003)	(0.003)
ln ROA_{it-1}	0.278***	0.333***	0.201***	0.228***
	(0.054)	(0.063)	(0.035)	(0.040)
ln $\theta_{Individuals,it-1}$	0.026	0.019	-0.005	-0.005
	(0.034)	(0.038)	(0.018)	(0.019)
ln $\theta_{Corporates,it-1}$	0.004	0.002	0.003	0.001
	(0.024)	(0.026)	(0.015)	(0.017)
ln $\theta_{Institutions,it-1}$	0.074**	0.084**	-0.025	-0.025
	(0.032)	(0.037)	(0.021)	(0.023)
High concentration	-0.018	-0.019	-0.055	-0.062
	(0.056)	(0.063)	(0.037)	(0.041)
Top individual	-0.019	-0.006	-0.059	-0.050
	(0.076)	(0.084)	(0.063)	(0.071)
Top corporate	0.059	0.072	-0.023	-0.016
	(0.070)	(0.079)	(0.060)	(0.066)
Multiple R^2	0.172	0.186	0.144	0.147
Adjusted R^2	0.150	0.165	0.130	0.133
SE	0.548	0.618	0.442	0.492

Note. N=482 company-year observations for registered shareholding and N=739 company-year observations for beneficial shareholding. Regression coefficients with standard errors shown in parentheses. The dependent variable is the change in the natural log of annual dividends ($\Delta \ln Div_{it}$) and the independent variables are the change in the natural log of profits ($\Delta \ln ROA_{it}$), change in the natural log of investor tax preference parameters ($\Delta \ln \theta_{it}$), the lagged levels of variables ($\ln Div_{it-1}$, $\ln ROA_{it-1}$, and $\ln \theta_{it-1}$), and ownership concentration dummy variables (high ownership concentration, top individual and top corporate).
** p < .10, ** p < .05, *** p < .01.*

The direction of relationships was found in line with expectations submitted in Table 8.2. A positive relationship between changes in annual dividends and the majority of explanatory variables was found. A negative relationship between changes in annual dividends and the lagged levels of dividends, high ownership concentration, and top individual shareholder were found.

Changes in current profits ($\Delta \ln ROA_{it}$), past profits ($\ln ROA_{it-1}$), and prior dividends ($\ln Div_{it-1}$) were found to have a statistically significant relationship with changes in annual dividends for registered and beneficial shareholding, in line with expectation and literature (Badenhorst, 2017; Geiler & Renneboog, 2015; Poterba, 2004). These findings confirm the importance of profitability and prior dividends as explanations for changes in dividends.

Changes in investor tax preference parameters were found to have a statistically significant positive relationship with changes in annual dividends based on registered shareholding. The level of significance relating to corporate tax preference parameters ($\Delta \ln \theta_{Corporates,it}$) was found to be higher than the other investor tax preference parameters considered. The standardised beta coefficients of corporate tax preference parameters ($\Delta \ln \theta_{Corporates,it}$) were also observed as higher than the standardised beta coefficients of other investor tax preference parameters considered. The detailed regression results which include standardised coefficients are included in Appendix E. The higher standardised beta coefficients in respect of corporates ($\Delta \ln \theta_{Corporates,it}$) suggest that corporate tax preference parameters explained changes in dividends more than other investor tax preference parameters considered. Based on the higher level of significance and higher standardised beta coefficients, it is submitted that the investor tax preference parameters of corporates explained changes in dividends more than other investor tax preference parameters considered in support of proposition 8 (detailed in Table 5.6). The finding in respect of corporate investors further expands on the findings of Badenhorst (2017) which suggests that corporates could be more successful to lobby for beneficial dividend changes than other investor types.

Investor tax preference parameters based on beneficial shareholding were only found to be significant in one instance, being for individuals ($\Delta \ln \theta_{Individuals,it}$) in respect of ordinary dividends. The fact that investor tax preference parameters were not found to be significant based on beneficial shareholding

in other instances could be explained by beneficial shareholding being representative of strategic shareholders investing for long-term reasons. Corporate investors, in particular, could invest for strategic reasons, resulting in dividend policy being seen as a second-order consideration (Desai & Jin, 2011) which could be reflected in the findings based on beneficial shareholding.

The coefficients relating to investor tax preference parameters also provided insights based on the short-run and long-run effect of a change in tax-preference on a change in dividends (as detailed under section 4.8.4). Contrary to previous studies in developed countries (Geiler & Renneboog, 2015; Poterba, 2004), the short-run effect on changes in dividends with respect to investor tax preference parameters was found to be statistically significant in respect of registered shareholding. This finding suggests that the effect of taxes from the perspective of a developing country (South Africa) may be more pronounced than the effect of taxes from the perspective of developed countries. Based on literature from other developing countries, the effect of taxes in payout policy decisions has also been submitted as more pronounced than in the initial mixed results in respect of developed countries (as detailed in the literature review in section 2.4). The estimated coefficients imply a long-run effect on changes in dividends with respect to investor tax preference parameters of 1.08 for individuals (-0.026/-0.024), 0.167 for corporates (-0.004/-0.024), and 3.08 for institutions (-0.074/-0.024). Geiler and Renneboog (2015) concluded on a long-run effect on changes in dividends with respect to investor tax preference parameters of 0.03 for individuals, −0.042 for corporates, and −1.58 for pension funds. The long-run effects on changes in dividends reported in the present study are higher than those noted by Geiler and Renneboog (2015) which suggest that, over the long term, dividend payout in South Africa seems to be more sensitive to investor tax preference parameters than dividend payout in the UK.

High ownership concentration, the presence of a top individual shareholder, and the presence of a top corporate shareholder were not found to be statistically significant explanatory variables. However, a negative relationship was noted in respect of all three ownership concentration dummy variables (high ownership concentration, top individual shareholder, and top corporate shareholder) based on registered and beneficial shareholding. The negative relationship noted could be indicative of support for the rent extraction hypothesis which posits that large shareholders prefer to extract private benefits of control rather than receive dividends that equally benefit all shareholders (Harada & Nguyen, 2011, p. 376). The present study considered further support for the rent extraction hypothesis in the context of other payout methods under section 8.5.2.

Ordinary dividends and total dividends (including special dividends not due to unbundling) were included in data analyses to investigate whether the inclusion of special dividends affected regression results. The flexibility of special dividends could extend to a tax context as a means of accelerating dividend declarations between different tax periods (Hanlon & Hoopes, 2014). The regression results relating to total dividends based on registered shareholding suggest an increase in the magnitude of coefficients, including standardised coefficients as detailed in Appendix E, of all investor tax preference parameters and an increase in the level of significance of two investor tax preference parameters ($\Delta \ln \theta_{Individuals,it}$ and $\Delta \ln \theta_{Institutions,it}$). However, the regression results relating to total dividends based on beneficial shareholding suggest a decrease in the magnitude of coefficients and none of the investor tax preference parameters being indicated as statistically significant. The contradicting findings resulted in only limited evidence being submitted that special dividends provided flexibility to companies to meet the dividend tax preferences of investors.

8.5 INVESTOR TAX PREFERENCE PARAMETERS AND OTHER PAYOUT METHODS

In investigating the relationship between other payout methods and investor tax preference parameters (Equation 4.3), the dependent variable was the change in the natural log of annual other payout methods ($\Delta \ln \text{Other payout}_{it}$). Annual other payout methods consisted of the aggregate of capital distributions, additional shares, and share repurchases.

The first explanatory variable referred to the change in the natural log of profits ($\Delta \ln ROA_{it}$). A positive relationship between changes in other payout methods and profits was expected. High accounting profit is submitted as a prerequisite for payout earnings by different payout channels (Geiler & Renneboog, 2015). Due regard should, however, be had for the fact that various determinants of other payout methods could mitigate the importance of profitability in the context of other payout methods (as detailed under section 2.9.2).

The second category of explanatory variables referred to the change in the natural log of investor tax preference parameters ($\Delta \ln \theta_{Individuals,it}$, $\Delta \ln \theta_{Corporates,it}$, and $\Delta \ln \theta_{Institutions,it}$). The expected relationships between changes in other payout methods and changes in investor tax preference parameters were argued based on the differential of tax on dividends and capital gains. Other payout would be subjected to capital gains tax if shares were held with a capital intent, save for specific share repurchases which could also be subjected to dividends tax on the portion exceeding a reduction in contributed tax capital (Figure 3.1). If other payout methods were subjected to capital gains tax, the result would be that any applicable dividends tax exemption for corporate and institutional investors would be forfeited, which would adversely affect the tax preference for such payout methods.

Conversely, for an individual investor not exempt from dividends tax, increases in the dividends tax rate could drive tax preference for other payout methods. As investor tax preference parameters depicted the preference for dividends relative to capital gains tax, an inverse relationship (or negative relationship) with other payout methods was expected.

The third category of explanatory variables referred to the lagged levels of the natural log of other payout methods (ln Other payout$_{it-1}$) and the lagged levels of the natural log of profits (ln ROA$_{it-1}$). Other payout for the period 2012 to 2018 mainly comprised share repurchases (Figure 7.2), and changes in the value of other payout methods were thus expected to be driven by changes in share repurchases. More JSE-listed companies were found to repurchase shares more regularly from 2010 to 2017 (Steenkamp & Wesson, 2020, p. 474). If companies repurchase shares regularly, the share repurchases in one year could predict share repurchases in the next year indicative of the effect of the lagged levels of other payout methods. In line with the findings in respect of dividends (Table 8.4), a negative relationship between other payout methods and the lagged levels of other payout methods was expected. A positive relationship between other payout methods and lagged levels of profits was expected as past profits could be retained and applied in funding future other payout methods.

The fourth category of explanatory variables referred to the lagged levels of the natural log of investor tax preference parameters (ln $\theta_{Individuals,it-1}$, ln $\theta_{Corporates,it-1}$, and ln $\theta_{Institutions,it-1}$). In line with the findings in respect of dividends (Table 8.4), no specific relationship between the lagged levels of investor tax preference parameters and current changes in other payout methods was expected.

The fifth category of explanatory variables referred to ownership concentration dummy variables. High ownership concentration was found to have a negative relationship in relation to dividends which could suggest possible support for the rent extraction hypothesis (Table 8.4). As other payout methods could serve as a substitute for dividends, this study submits that the rent extraction hypothesis could also extend to other payout methods. Consistent with the negative relationship found in relation to dividends, a negative relationship between high ownership concentration and other payout methods was expected. A top individual shareholder was expected to have a positive relationship with changes in other payout methods owing to lower tax preferences for dividends (Figure 8.1). A top corporate shareholder and top institution shareholder were expected to have a negative relationship with changes in other payout methods owing to tax preferences for dividends (Figure 8.1).

In conclusion, the expected relationships between the dependent variable (changes in other payout) and each explanatory variable are summarised in Table 8.5.

Table 8.5

Variables – Other payout and investor tax preference parameters

Variable	Description	Expected relationship
	Dependent variable	
Δ ln Other payout$_{it}$	Change in the natural log of annual payout other than dividends (capital distributions, additional shares, and share repurchases)	Not applicable
	Explanatory variable	
Δ ln ROA$_{it}$	Change in the natural log of profits	Positive (+)
Δ ln $\theta_{Individuals,it}$	Change in the natural log of individual tax preference parameters	Negative (-)
Δ ln $\theta_{Corporates,it}$	Change in the natural log of corporate tax preference parameters	Negative (-)
Δ ln $\theta_{Institutions,it}$	Change in the natural log of institution tax preference parameters	Negative (-)
ln Other payout$_{it-1}$	Lagged levels of annual payout other than dividends	Negative (-)
ln ROA$_{it-1}$	Lagged levels of profits	Positive (+)
ln $\theta_{Individuals,it-1}$	Lagged levels of individual tax preference parameters	None
ln $\theta_{Corporates,it-1}$	Lagged levels of corporate tax preference parameters	None
ln $\theta_{Institutions,it-1}$	Lagged levels of institution tax preference parameters	None
	Dummy variables as explanatory variables	
High concentration	High ownership concentration based on Herfindahl index	Negative (-)
Top individual	Top shareholder is an individual	Positive (+)
Top corporate	Top shareholder is a corporate	Negative (-)
Top institution	Top shareholder is an institution	Negative (-)

Note. Data collection and data sources of variables are summarised in Table 4.4.

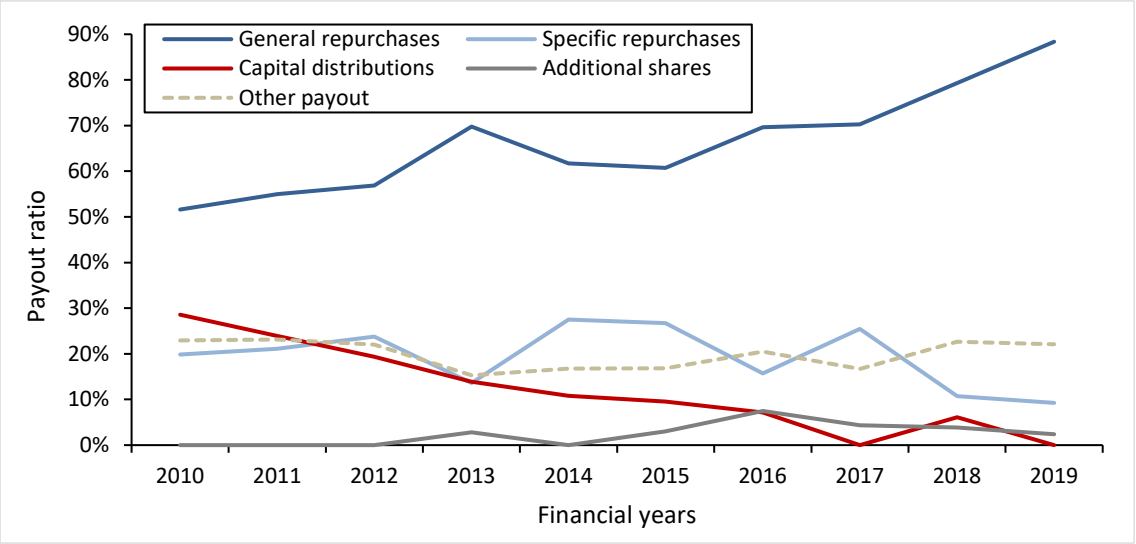
For investor tax preference parameters, the negative relationship reflected the fact that investor tax preference parameters indicated the preference for dividends tax relative to capital gains tax. An increase in investor tax preference parameters suggested an increase in the preference for dividends, in turn reducing the preference for other payout methods. An increase in the dividends tax rate would decrease investor tax preference parameters if the effective rate of capital gains tax remained unchanged. An increase in the effective rate of capital gains tax would, in turn, increase investor tax preference parameters if the dividends tax rate remained unchanged. An inverse relationship between changes in investor tax preference parameters and other payout methods was thus expected. For a top individual shareholder, a marginal capital gains tax preference could suggest a preference for other payout methods, resulting in a positive relationship being expected. The data analysis in the section which follows considers empirical evidence for the expected relationships and proceeds with descriptive statistics.

8.5.1 Descriptive statistics: Other payout and investor tax preference parameters

Other payout methods are described by means of average payout ratios which are calculated as the average percentage of each payout method of aggregate other payout methods per financial year. Payout ratios accordingly depict the contribution of each payout method to aggregate other payout methods and the overall contribution of aggregate other payout methods to total payout. The payout ratios for the target period of 2010 to 2019 are illustrated in Figure 8.4.

Figure 8.4

Payout ratios for the period 2010 to 2019



Note. Payout ratios depict the average percentage of each payout method of aggregate other payout methods in solid lines. The average percentage of aggregate other payout methods of total payout is presented by the dashed line.

Other payout constituted less than 25% of total payout throughout the target period, which is indicative of dividends dominating total payout. Capital distributions displayed a decreasing trend and additional shares an increasing trend – each contributing less than 10% to aggregate other payout methods during most years considered. Share repurchases contributed the overwhelming majority of other payout methods, driven by general repurchases being the main contributor during each of the financial years. The low contribution of specific repurchases to other payout methods, compared to general repurchases, could be explained by the fact that specific repurchases were elected fewer times than general repurchases as payout method but at higher average values per election (Figure 7.2 and Table 7.2), which would lower the average payout ratio reflected in respect of specific repurchases in Figure 8.4. General repurchases are excluded as dividends for tax purposes and subjected to capital gains tax if shares were held with capital intent. Accordingly, general repurchases subjected to capital gains tax would not be subjected to dividends tax which would have afforded

exemption for corporate investors and institution investors (as discussed under section 3.2.3). The fact that general repurchases were found to be the majority contributor to other payout methods contributed to a unique setting to investigate whether the differential between dividends tax and capital gains tax affected the supply of other payout methods.

The aggregate of other payout methods had a more stable contribution to total payout than the contribution of each other payout method to aggregate other payout methods which fluctuated more over the period. For the purposes of the data analysis, other payout methods were considered in aggregate and not for each of the payout methods individually. Furthermore, evident from the frequency of electing other payout methods was the fact that less than half of observations elected other payout, compared to about 90% of observations electing ordinary dividends (Table 7.2). Based on the infrequent nature of payout methods other than ordinary dividends, the focus was on company-year observations with changes in other payout methods (Δ ln Other payout$_{it}$) in order to investigate the role of investor tax preference parameters in a decision to elect other payout methods (as detailed in the sample selection applied in this study in section 4.8.3). The descriptive statistics of transformed variables are provided in Table 8.6.

Table 8.6

Descriptive statistics – Other payout and investor tax preference parameters

Variables	Registered shareholding:			Beneficial shareholding:		
	M	*Mdn*	*SD*	*M*	*Mdn*	*SD*
Δ ln Other payout$_{it}$	0.337	0.065	11.457	0.100	0.029	11.828
Δ ln ROA$_{it}$	-0.082	-0.036	0.527	-0.069	-0.031	0.536
Δ ln $\theta_{Individuals,it}$	-0.029	-0.017	0.303	0.032	0.001	0.505
Δ ln $\theta_{Corporates,it}$	0.021	0.023	0.545	-0.022	0.001	0.787
Δ ln $\theta_{Institutions,it}$	0.015	0.004	0.183	0.055	0.033	0.449
ln Other payout$_{it-1}$	13.175	16.605	7.835	13.373	16.735	7.802
ln ROA$_{it-1}$	2.444	2.513	0.652	2.407	2.468	0.663
ln $\theta_{Individuals,it-1}$	2.653	2.741	1.012	1.818	1.951	1.439
ln $\theta_{Corporates,it-1}$	2.577	2.592	1.169	1.821	2.167	1.650
ln $\theta_{Institutions,it-1}$	3.895	4.152	0.860	3.154	3.706	1.294

Note. *N*=233 company-year observations for registered shareholding and *N*=356 company-year observations for beneficial shareholding. Descriptive statistics in respect of regression variables are presented in this table by the mean (*M*), the median (*Mdn*), and the standard deviation (*SD*) of variables.

The Durbin-Watson test performed indicated no autocorrelation issues for registered shareholding (d-value of 1.78) or beneficial shareholding (d-value of 1.77). The variance inflation factors of variables, other than 'top institution', ranged from 1.02 to 2.51 and were regarded as acceptable. The variance inflation factor of 'top institution' was found to be collinear and excluded for purposes of data analysis. The Breusch-Pagan test was performed in respect of heteroscedasticity for registered shareholding (BP=24.08, df=12, p=0.02) and beneficial shareholding (BP=39.12, df=12, p<0.01), which resulted in the necessity to adapt OLS results for heteroscedasticity and provided a suitable case to apply quantile regressions (section 4.8.4). The necessary assumptions for performing regression analyses were accordingly considered. The descriptive statistics of the percentiles of changes in other payout methods (Δ ln Other payout) are provided in Table 8.7 in support of the focus of quantile regressions.

Table 8.7

Descriptive statistics – Percentiles of changes in payout other than dividends

Payout percentile	P10	P20	P30	P40	P50	P60	P70	P80	P90
Registered shareholding	-17.218	-10.356	-1.612	-0.451	0.065	0.552	1.664	13.824	17.982
	(0.138)	(1.859)	(3.451)	(2.987)	(0.663)	(0.510)	(0.443)	(0.325)	(0.278)
Beneficial shareholding	-17.623	-13.618	-1.861	-0.547	0.029	0.599	1.575	14.804	17.983
	(0.447)	(0.976)	(2.118)	(2.596)	(0.475)	(0.391)	(0.369)	(0.321)	(0.307)

Note. Percentiles mean payout calculated from grouped data for changes in log other payout methods. Standard deviation in parentheses.

The percentile means of changes in other payout methods (Δ ln Other payout) enabled a distinction between observations for which other payout methods increased and decreased. The median is represented by the 50th percentile (P50) for observations in respect of which changes in log other payout methods approximated zero. Other payout methods increased for observations from the 60th percentile (P60) indicated by the positive mean values with the 75th percentile (P75), representing the median increase in other payout methods. Other payout decreased for observations up to the 40th percentile indicated by the negative mean values with the 25th percentile (P25), representing the median decrease in other payout methods. Quantile regressions enable an investigation into the effect of the explanatory variables based on a distinction between observations for which other payout methods increased and decreased. The variation data in the lower percentiles, representing decreases in other payout methods, was observed as higher than the variation of the upper percentiles. The higher variation could be explained by the fact that other payout methods, despite conceivably being employed as a regular payout method, were not an annual payout method

comparable to annual dividends. The variation in the lower percentiles could represent other payout methods during a year which was not repeated in the subsequent year.

The regression results presented in the section which follows include OLS results as well as the quantile regression results of the 25th percentile (Payout P25), the 50th percentile (Payout P50), and the 75th percentile (Payout P75). Based on regression analyses, the hypotheses tested were whether an independent variable had no effect in explaining changes in payout (null hypothesis) or whether an independent variable had an effect on explaining changes in payout (alternative hypothesis).

8.5.2 Regression results: Other payout and investor tax preference parameters

The regression results estimated for Equation 4.3 with annual changes in other payout methods (Δ ln Other payout) as the dependent variable are provided in Table 8.8 based on registered and beneficial shareholding. OLS results were adapted for heteroscedasticity using White's robust covariance matrix and variables winsorised at 10% level in terms of method detailed in section 4.8.4.

Differences between OLS estimates and quantile regression estimates depict the differential effect on the dependent variable which include changes in the significance of variables or changes in the magnitude of variable coefficients (Thakur & Kannadhasan, 2018, p. 373). Quantile regression provided differing insights from OLS regression most notably in the 75th percentile for which the level of significance of variables increased and variables being noted as significant (ln ROA_{it-1}, ln $\theta_{Individuals,it-1}$, Δ ln $\theta_{Institutions,it-1}$, Top individual and Top corporate). The 75th percentile is submitted as representing the overall best fit for the model employed in the respect of other payout methods based on the highest proportion of variance accounted for by variables (indicated by R-squared).

A negative relationship between changes in other payout methods and explanatory variables was expected with a positive relationship only expected for profitability and a top individual shareholder (Table 8.5). Overall the direction of relationships between the dependent variable and the majority of independent variables were confirmed as in line with expectation for the 75th percentile. The findings in respect of each explanatory variable are provided in the paragraphs which follow to investigate expected relationships in further detail.

Changes in current profits (Δ ln ROA_{it}) and past profits (ln ROA_{it-1}) were found to have a positive relationship with changes in other payout methods with only past profits being noted as statistically significant. This finding suggests the retention of past profits (ln ROA_{it-1}) as a more important determinant than changes in current profits (Δ ln ROA_{it}). Other determinants, as detailed under section 2.9.2, could explain the finding of changes in current profits (Δ ln ROA_{it}) not as significant.

Table 8.8

Regression results – Other payout and investor tax preference parameters

Description	Registered shareholding:			
	OLS	Payout P25	Payout P50	Payout P75
Intercept	15.787	14.213	16.830	18.773
	(1.203)	(2.523)	(0.663)	(0.401)
Δ ln ROA_{it}	1.456	6.795***$^{+}$	0.491	0.025^{+}
	(1.454)	(2.401)	(0.647)	(0.357)
Δ ln $\theta_{Individuals,it}$	2.847	6.100	-1.018^{+}	0.280^{+}
	(2.583)	(4.961)	(1.338)	(0.738)
Δ ln $\theta_{Corporates,it}$	-0.381	1.098	0.027	-0.479
	(1.967)	(3.500)	(0.944)	(0.520)
Δ ln $\theta_{Institutions,it}$	1.917	2.607	0.254	-0.041
	(5.221)	(8.447)	(2.279)	(1.256)
ln Other $payout_{it-1}$	-1.163***	-1.431***$^{+}$	-0.999***$^{+}$	-1.036***$^{+}$
	(0.058)	(0.115)	(0.031)	(0.017)
ln ROA_{it-1}	2.416***	6.055***$^{+}$	1.261***$^{+}$	0.772***$^{+}$
	(0.854)	(1.542)	(0.416)	(0.229)
ln $\theta_{Individuals,it-1}$	-1.630***	-2.150*	-1.173***	-0.845***$^{+}$
	(0.603)	(1.117)	(0.301)	(0.166)
ln $\theta_{Corporates,it-1}$	-0.460	0.2891	-0.237	0.199^{+}
	(0.524)	(0.931)	(0.251)	(0.138)
ln $\theta_{Institutions,it-1}$	-0.283	-0.814	-0.440	-0.037
	(0.755)	(1.365)	(0.368)	(0.203)
High concentration	0.578	3.534*	0.297	0.002^{+}
	(1.006)	(1.878)	(0.506)	(0.279)
Top individual	-1.621	-5.440**	-1.098	-0.973**
	(1.672)	(2.685)	(0.724)	(0.399)
Top corporate	-1.018	-3.450	-0.681	-1.258***
	(1.482)	(2.639)	(0.711)	(0.392)
Adjusted R^2; Pseudo R^2	0.589	0.294	0.398	0.635
SEM; MAE	7.317	7.728	4.855	5.176

Note. N=233 company-year observations for registered shareholding. Regression coefficients with standard errors in parentheses. The dependent variable is the natural log of changes in other payout methods (Δ ln Other $payout_{it}$) with the independent variables of the natural log of changes in corporate profits (Δ ln ROA_{it}), investor tax preference parameters (Δ ln θ_{it}), and lagged levels of variables. Ownership concentration is represented by three dummy variables (high ownership concentration, top individual, and top corporate).

$^{+}$ *Quantile regression coefficient significantly differs from OLS coefficient (OLS coefficient falls outside the confidence intervals of the quantile regression coefficient).*

** p < .10, ** p < .05, *** p < .01.*

Table 8.8 (continued)

Regression results – Other payout and investor tax preference parameters

Description	Beneficial shareholding:			
	OLS	Payout P25	Payout P50	Payout P75
Intercept	16.529	15.388	17.252	19.168
	(0.953)	(1.344)	(0.475)	(0.372)
Δ ln ROA_{it}	0.481	1.163	0.107	0.168
	(1.242)	(1.395)	(0.611)	(0.328)
Δ ln $\theta_{Individuals,it}$	1.418	0.4995	-0.454	-0.693^{+}
	(2.369)	(2.598)	(1.138)	(0.610)
Δ ln $\theta_{Corporates,it}$	0.892	2.725	0.041	-0.011^{+}
	(1.546)	(1.887)	(0.827)	(0.443)
Δ ln $\theta_{Institutions,it}$	1.850	2.251	1.905**	0.707^{+}
	(1.980)	(2.116)	(0.927)	(0.497)
ln Other $payout_{it-1}$	-1.189***	-1.718***$^{+}$	-1.003***$^{+}$	-1.001***$^{+}$
	(0.041)	(0.062)	(0.027)	(0.014)
ln ROA_{it-1}	1.587**	1.698**	0.618^{+}	0.793***$^{+}$
	(0.748)	(0.863)	(0.378)	(0.203)
ln $\theta_{Individuals,it-1}$	-0.261	-0.649	-0.463**	-0.356***
	(0.420)	(0.504)	(0.221)	(0.118)
ln $\theta_{Corporates,it-1}$	-0.126	-0.200	-0.132	0.122^{+}
	(0.373)	(0.429)	(0.188)	(0.100)
ln $\theta_{Institutions,it-1}$	0.656	0.804	0.397	0.396***
	(0.506)	(0.585)	(0.256)	(0.137)
High concentration	0.263	0.833	-0.027	-0.265^{+}
	(0.891)	(1.065)	(0.467)	(0.250)
Top individual	-0.505	1.443	0.513	-0.071
	(1.674)	(1.758)	(0.770)	(0.413)
Top corporate	0.247	2.106	0.819	-0.335
	(1.587)	(1.881)	(0.824)	(0.442)
Adjusted R^2; Pseudo R^2	0.596	0.305	0.397	0.631
SEM; MAE	7.500	9.491	5.098	5.454

Note. N=356 company-year observations for beneficial shareholding. Regression coefficients with standard errors in parentheses. The dependent variable is the natural log of changes in other payout methods (Δ ln Other $payout_{it}$) with the independent variables of the natural log of changes in corporate profits (Δ ln ROA_{it}), investor tax preference parameters (Δ ln θ_{it}), and lagged levels of variables. Ownership concentration is represented by three dummy variables (high ownership concentration, top individual, and top corporate).

$^{+}$ *Quantile regression coefficient significantly differs from OLS coefficient (OLS coefficient falls outside the confidence intervals of the quantile regression coefficient).*

** p < .10, ** p < .05, *** p < .01.*

Prior other payout (ln Other payout$_{it-1}$) was found to have a statistically significant negative relationship with changes in other payout methods based on OLS and quantile regressions in line with expectation and the findings in respect of dividends (Table 8.4). This finding suggests that other payout methods in the past are highly predictive of changes in current other payout methods. With reference to share repurchases as the main other payout method, more JSE-listed companies were found to repurchase shares more regularly from 2010 to 2017 (Steenkamp & Wesson, 2020, p. 474) which could have enunciated the importance of past share repurchases as a predictor of future share repurchases.

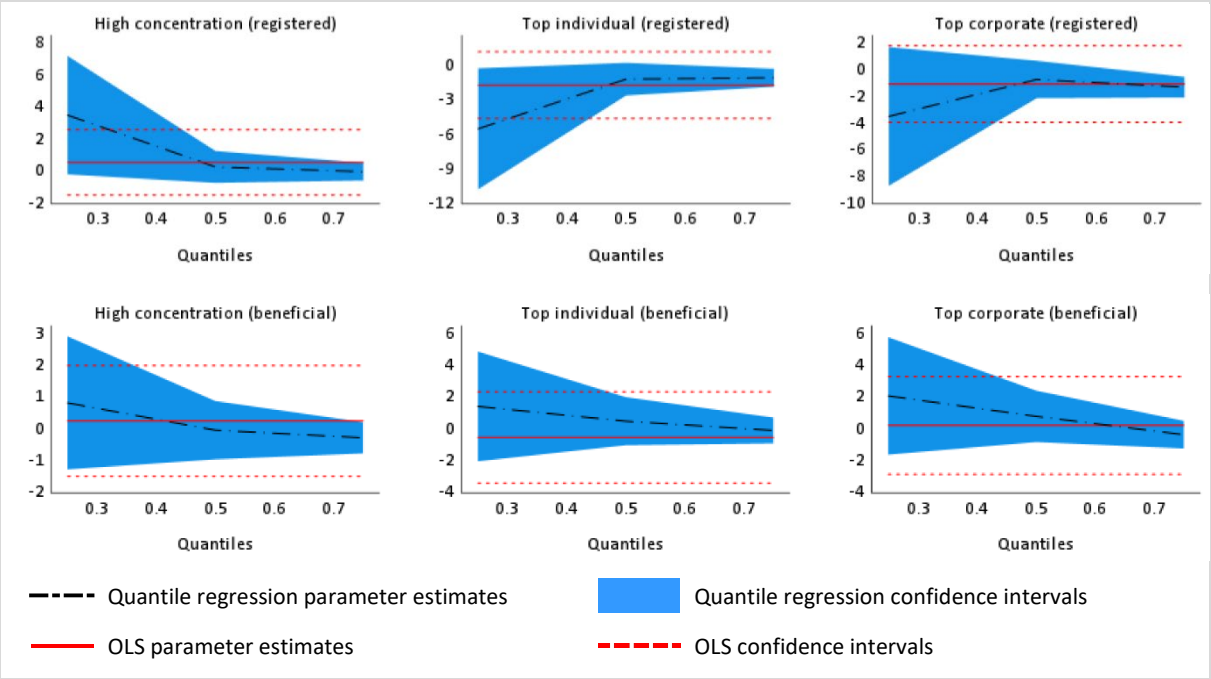
Changes in investor tax preference parameters ($\Delta \ln \theta_{Individuals,it}$, $\Delta \ln \theta_{Corporates,it}$, and $\Delta \ln \theta_{Institutions,it}$) were not found to have a statistically significant relationship with changes in other payout methods based on OLS or for the 75th percentile. Contrary to the findings in respect of dividends the short-run changes of investor tax preference parameters were not found to have a significant effect on the aggregate changes in other payout methods. This finding suggests tax is not a significant determinant of other payout methods which could be explained by the other determinants as detailed under section 2.9.2. With reference to share repurchases as the main other payout method, share repurchases were also found not to be more tax efficient than dividends under the STC regime (Carrim, 2012) and motivations, other than tax, for specific repurchases from subsidiaries could include the flexibility afforded by treasury shares in the management of the capital structure of companies (Cassim, 2010). The finding in respect of share repurchases is also consistent with findings of the present study in Chapter 7, in which no support for propositions based on tax reform was submitted indicative of the importance of determinants other than tax in share repurchase decisions.

Ownership concentration represented by the presence of a top individual shareholder and a top corporate shareholder was found to be significant in explaining changes in other payout methods for the 75th percentile (increases in other payout methods) based on registered shareholding. A top corporate shareholder was found to have a statistically significant negative relationship with changes in other payout methods in line with an expectation based on tax reform which highlights the preference for dividends over other payout methods. A top individual shareholder and the lagged level of individual tax preference parameters ($\ln \theta_{Individuals,it-1}$) were found to have a statistically significant negative relationship with changes in other payout methods, whereas a positive relationship was expected based on tax reform resulting in a marginal preference for other payout methods subjected to capital gains tax (Figure 3.2). The marginal preference for capital gains tax implied that the lagged level of individual tax preference parameters ($\ln \theta_{Individuals,it-1}$) captured changes in shareholding rather than changes in tax rates. The negative relationship suggests that a top individual shareholder is associated with lower other payout methods in support for the rent extraction hypothesis. A negative

relationship was also noted between changes in dividends and the presence of a top individual shareholder; however, the relationship was not found to be statistically significant. These findings suggest that support for rent extraction is more pronounced in the reduction of other payout methods than changes in dividends. Quantile regression results further emphasise the findings in respect of ownership concentration in the context of increases in other payout methods. The differences between OLS and quantile regressions are illustrated by the quantile process estimates for the 25th percentile to the 75th percentile in Figure 8.5.

Figure 8.5

Quantile process estimates with 95% confidence intervals



As illustrated in Figure 8.5 the lower 50th percentile, observations with decreases in other payout methods, had the highest variation. Whereas the upper 50th percentiles, observations with increases in other payout methods, had the lowest variation. If OLS coefficients are compared to coefficients for the upper 50th percentiles a change in the magnitude of coefficients is evident. Furthermore, variables (top individual and top corporate) were also noted as statistically significant in the upper 50th percentiles for registered shareholding and not as statistically significant based on OLS. These findings enunciate the differing insights obtained for the upper 50th percentiles (observations with increases in other payout methods). A top individual shareholder, in particular, was found to have a significant relationship with changes in other payout methods based on registered shareholding.

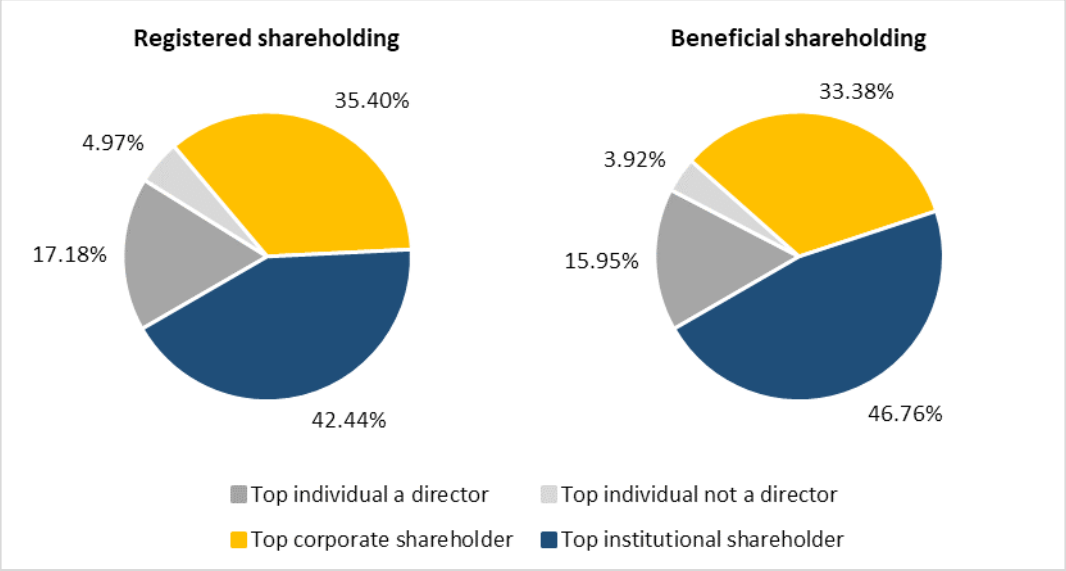
In the section which follows, consideration is given to the fact that a director could be the top individual shareholder of a company.

8.6 CONSIDERATION OF DIRECTOR AS TOP SHAREHOLDER

Companies were found to be more likely to pay dividends when the largest shareholder was not an insider, and companies tended to pay fewer dividends when the largest shareholder was either an insider or a financial institution (Truong & Heaney, 2007). In this study a top individual shareholder was found to be significant in explaining changes in other payout methods (Table 8.8), resulting in an investigation into the extent to which the top individual shareholder of companies was represented by a director as an insider. The extent to which top individual shareholders were represented by directors, in turn, served as a basis for inference in respect of the conceivable contribution of directors as a top shareholder in influencing changes in payout methods. Based on data collection, as described in section 4.8.2.4, the top shareholder for each company-year observation was classified as top individual a director, top individual not a director, top corporate shareholder, and top institution shareholder. The percentage of each top shareholder category based on registered and beneficial shareholding is illustrated in Figure 8.6.

Figure 8.6

Top shareholder per category



Most observations had a top institution shareholder which corresponded with institutional shareholding being noted as the highest of all categories of shareholding data collected (Figure 8.2). A tax-insensitive dedicated institutional investor could have monitored the company's payout policy and mitigated potential self-serving behaviour of insiders (Krupa & Utke, 2020, p. 34). The presence

of a top institutional shareholder could conceivably have met the monitoring role to mitigate the self-serving behaviour of insiders for certain observations. The presence of a top corporate shareholder, noted as having the second most observations, was not found to be significantly related to changes in dividends (Table 8.4) but found to be significantly related to changes in other payout methods (Table 8.8).

Despite the least number of observations having a top individual shareholder, the presence of a top individual shareholder was noted for such observations to have a significant relationship in respect of changes in other payout methods (Table 8.8). Directors, in turn, represented the overwhelming majority of top individual shareholding based on both registered shareholding and beneficial shareholding (Figure 8.6). The overwhelming extent to which top individual shareholders were represented by directors is submitted as the basis for the inference that directors as top shareholders could have influenced changes in payout methods. Despite top individual shareholding, represented by directors, not being found to have a significant relationship with changes in dividends (Table 8.4), companies could conceivably still have granted stealth compensation by allowing dividends to be paid on unvested restricted share grants (Minnick & Rosenthal, 2014). The negative relationship noted between a top individual shareholder, represented by directors, and other payout methods (Table 8.8) suggested that directors could have influenced payout policies resulting in lower other payout methods.

This submission expands on the findings of support for the rent extraction hypothesis by arguing that directors' holdings represent top individual shareholding to an overwhelming extent and conceivably contributed as a top shareholder in influencing changes in payout methods.

8.7 CONCLUSION

This chapter investigated the relationship between changes in payout methods and investor tax preference parameters. Investor tax preference parameters considered as variables were calculated and depict the tax preference for dividends relative to capital gains tax for different categories of investors (individuals, corporates, and institutions). The changes in dividends (ordinary and total dividends) and payout other than dividends (capital distributions, additional shares, and share repurchases) were employed as dependent variables in the investigation. Other payout data considered were also analysed by means of quantile regressions which afforded a distinction between observations for which other payout methods decreased (25^{th} percentile as median) and observations for which the other payout methods increased (75^{th} percentile as median). The two main findings of this chapter were: (i) that changes in corporate tax preference parameters explained changes in

dividends more than other investor tax preference parameters considered; and (ii) that ownership concentration, in terms of the presence of a top individual shareholder, was a significant explanatory variable in respect of other payout methods in support of the rent extraction hypothesis.

Corporate investors are submitted as most affected since the introduction of dividends tax in 2012 as a result of an exemption from dividends tax and increases in applicable tax rates. Regression results confirmed changes in corporate tax preference parameters as most statistically significant and with the highest standardised beta coefficients in explaining changes in dividends of all three categories of investor tax preference parameters considered. This finding supported that changes in the investor tax preference parameters of corporates explained changes in payout methods more than other investor tax preference parameters considered (proposition 8 in Table 5.6). Furthermore, this finding provided evidence that the differential tax of dividends and capital gains tax, as depicted by investor tax preference parameters, explained changes in dividends which contributed to the question of whether the differential taxation of dividends versus capital gains affected the supply of dividends (Farre-Mensa et al., 2014, p. 103).

Ownership concentration, represented by the top shareholder in companies, was found as significant in explaining changes in other payout methods. The presence of a top individual shareholder was found to have a statistically significant negative relationship with changes in other payout methods in support of the rent extraction hypothesis. The fact that directors represented top individual shareholders in an overwhelming majority extended the findings in respect of the rent extraction hypothesis to include directors in particular.

In conclusion, this chapter also contributed to the debate on the effect of investor-level tax reform on payout policies by considering a distinction between types of shareholding (registered and beneficial). Investor tax preference parameters were calculated based on registered and beneficial shareholding. The investor tax preference parameters were found to be significant in explaining changes in dividends based on registered shareholding, however, only one investor tax preference parameter was found to be significant in explaining changes in dividends based on beneficial shareholding. These findings could be explained by the fact that beneficial shareholding could invest for strategic reasons unrelated to tax.

CHAPTER 9: CONCLUSION AND RECOMMENDATIONS

9.1 INTRODUCTION

The interaction between dividends and company value can be argued from two opposing viewpoints – as irrelevant in determining company value and possibly even value-destroying (Miller & Modigliani, 1961) or as relevant and an important determinant of company value (Lintner, 1956). The theory of taxes and tax clienteles, one of the major theories and explanations for dividend relevance (Baker & Weigand, 2015, p. 133), served as the underlying theory of the present study. The central notion is that after-tax returns shape an investor's preference for a specific payout method and, in turn, the investor could select a company with a payout policy in line with their preference (Baker et al., 2018). Taxes and tax clienteles theory questions whether taxes, aggregated over all investors, are important enough for companies to respond or if companies will simply let investors sort themselves into different tax-based dividend clienteles (Booth & Zhou, 2017, p. 8). A company could respond to investor-level taxes by adjusting payout policies (Geiler & Renneboog, 2015; Korkeamaki et al. 2010).

The research question of this study was whether the payout policies of selected JSE-listed companies were adjusted on the basis of investor-level tax reform. The overarching aim was to investigate the effect of investor-level tax reform on payout policies based on answering the research question. The central year of interest was 2012 when dividends tax was introduced in South Africa. For the selected JSE-listed companies (excluding secondary JSE-listings as well as companies in the resources and financial sectors), financial reporting periods from 2006 to 2019 were examined. The research question was answered by pursuing four research objectives informed by recurring themes identified in literature. The magnitude of tax reform as a recurring theme was argued by means of an overview of tax reform and calculated after-tax values of payout methods (first research objective). The anticipation of tax reform as a recurring theme was considered with reference to the timing of dividend declarations (second research objective) and the trend and composition of total payout (third research objective). Payout methods consisted of dividends, capital distributions, additional shares, and share repurchases. Ownership as a recurring theme was examined by means of after-tax values of payout methods (first research objective) and investor tax preference parameters (fourth research objective), which distinguished between three categories of investors (individuals, corporates, and institutions). Eight propositions in respect of payout policies were submitted on the basis of an overview of tax reform (Chapter 3) and after-tax values of payout methods (Chapter 5). The results of the four research objectives then served as a basis for the support of propositions in answering the research question of the study.

9.2 RECONCILIATION OF RESEARCH OBJECTIVES

The outcome of the research objectives is provided in this section and concludes with a summary of the support for the propositions of this study in Table 9.1.

First research objective: Calculation of after-tax values of different payout methods

The first research objective was to calculate the after-tax values of payout methods in order to present an argument for the increased role of taxes and to formulate propositions in respect of payout policies (Chapter 5). The findings relating to the first research objective suggest that tax reform in a South African context resulted in a significant change in investor tax-driven preferences for different payout methods. The amendment of the definition of dividend for tax purposes during 2011 led to general repurchases being excluded as dividends, resulting in the levy of capital gains tax if shares were held with a capital intent. The introduction of dividends tax during 2012, levied at investor level, enunciated the conflicting tax preferences of investors due to the exemption from dividends tax being afforded only to certain investors. The conflicting tax preferences are submitted as an indication of the increased role of taxes indicative of the magnitude of tax reform identified as a recurring theme in literature. The tax preference of corporate investors is submitted as most affected, based on tax differentials, which pronounces the tax preference for dividends over share repurchases and additional shares. The potential benefit of scrip dividends which empower investors to decide between a cash dividend (subject to dividends tax) or additional shares (subject to capital gains tax if held with capital intent) is also argued based on after-tax values. Based on the first research objective, the increased role of taxes is argued to be indicative of the magnitude of tax reform and resulted in propositions in respect of payout policies being submitted for further investigation.

Second research objective: Investigation of the timing of dividend declarations

The second research objective was to investigate whether dividend declarations were accelerated or postponed in anticipation of the introduction of dividends tax during 2012 (Chapter 6). The trend in days-to-declaration in aggregate for selected companies was considered and an investigation at individual company level was performed. The findings in respect of the second research objective suggest that there was a postponement of interim dividends during the 2012 financial year of companies. This finding was based on an increase in the number of days-to-declaration compared to other financial years (Figure 6.1). An investigation at individual company level also merited a tax explanation for the postponement in interim dividends during 2012 based on the consideration of the specific date of 1 April 2012 (the date on which dividends tax was introduced). A marginal increase in the number of special dividends exclusively declared during 2012 (Figure 6.3) provided only limited empirical evidence of an acceleration of special dividends during 2012. The non-declaration of

dividends during 2012 is submitted as a result of overall dividend policy in respect of dividends and not as an indication of a postponement during 2012. Based on the second research objective, proposition 1 in respect of the timing of dividend declarations during 2012 is supported as the timing of interim dividends declared during 2012 was observed as postponed and a possible tax explanation for such a postponement exists. The finding of a tax effect as a result of the timing of payout methods which were adjusted in a year of investor-level tax reform is accordingly submitted.

Third research objective: Investigation of the trend and composition of total payout

The third research objective was to investigate the trend and composition of total payout over a period of tax reform (Chapter 7). The trend and composition of total payout during the post-2012 period were expected to differ from the pre-2012 period based on an overview of tax reform (Chapter 3) and after-tax values (Chapter 5). Proposition 2 in respect of ordinary dividends is supported as a statistically significant increase in value, and frequency of election was observed during the post-2012 period. Profitability was observed as not being a main confounding factor for increased dividends during the post-2012 period. Special dividends during the post-2012 period were found to be lower than during the pre-2012 period (contrary to an expected increase) which could be explained by share repurchases that could be utilised as a more flexible option than special dividends during the post-2012 period to distribute transitory earnings. Proposition 3 in respect of capital distributions is supported as a statistically significant decrease in value and a decrease in the frequency of electing capital distributions were observed during the post-2012 period. The decrease in capital distributions noted in this study is submitted as evidence of the payout policies of companies which were adjusted as a result of the differential tax of dividends and capital gains. Proposition 4 in respect of specific repurchases from subsidiaries is not supported as no decrease in such repurchases was observed during 2011 (Figure 7.3). Proposition 5 in respect of general repurchases is not supported as no statistically significant decrease in value during the post-2012 period was observed. Proposition 6 in respect of specific repurchases is only supported for specific repurchases not from subsidiaries, as a statistically significant increase in value and an increase in the frequency of election was observed during the post-2012 period. Specific repurchases from subsidiaries during the post-2012 period did not increase significantly, despite the dividends tax exemption afforded, which could suggest motivations other than tax for entering into specific repurchases from subsidiaries. Proposition 7 in respect of additional shares issued as scrip dividends is supported as a statistically significant increase in value and an increase in the frequency of election was observed during the post-2012 period. Despite the value of additional shares as a payout method being relatively low compared to other payout methods (Figure 7.2), the observed increase provided insight in respect of a payout method that empowers investors. The utilisation of scrip dividends empowered investors to choose between

cash dividends (subject to dividends tax) or additional shares (subject to capital gains tax if held with capital intent) based on their financial position to maximise the after-tax receipt.

Based on the third research objective, the support for propositions submitted on the basis of the results of the third research objective was indicative that the trend and composition of total payout of selected JSE-listed companies differed during the post-2012 period. The increased frequency of electing more than one payout method during the post-2012 period suggests that more diverse payout methods are being utilised (Table 7.3). The trend in the value of payout methods, however, showed that total payout was dominated by ordinary dividends which increased during the post-2012 period.

Fourth research objective: Investigation of the relationship between changes in payout methods and changes in investor tax preference parameters

The descriptive studies performed as part of the first, second, and third research objectives emphasised the opportunity for further explanatory research into the effect of investor-level tax reform on payout policies. The fourth research objective was to investigate the relationship between changes in investor tax preference parameters and changes in payout methods since the introduction of dividends tax in 2012 (Chapter 8). Regression results confirmed that changes in corporate tax preference parameters were the most statistically significant and with the highest standardised beta coefficient in explaining changes in dividends of all three categories of investors considered. Based on these findings proposition 8 is supported as the changes in the investor tax preference parameters of corporates would explain changes in payout methods more than other investor tax preference parameters considered. Changes in payout methods other than dividends were also analysed; however, investor tax preferences were not found to be significant explanatory variables which could point to the importance of other determinants in explaining payout methods other than dividends.

Regression results also emphasised ownership concentration as significant in explaining changes in payout methods. The presence of a top individual shareholder, represented by directors in an overwhelming majority, was found to have a statistically significant negative relationship with changes in other payout methods in support of the rent extraction hypothesis. The rent extraction hypothesis posits that top shareholders could prefer to extract private benefits of control rather than payout that equally benefits all shareholders (Harada & Nguyen, 2011, p. 376). The findings in support of the rent extraction hypothesis are contrary to an expectation based on tax reform.

Based on the fourth research objective, the research objectives pursued in this study provided empirical evidence in support of the eight propositions submitted. Proposition 1 to proposition 4 were

submitted on the basis of an overview of tax reform in Chapter 3. Proposition 5 to proposition 8 were submitted on the basis of after-tax values in Chapter 5. The support for the eight propositions is summarised in Table 9.1.

Table 9.1

Conclusion on support for propositions

Proposition number	Proposition in respect of payout policies	Supported?	Research objective
1	Timing of dividend declarations during 2012 would differ from immediately preceding and subsequent years.	Yes	Second research objective results (Chapter 6).
2	Dividends post-2012 would be higher than dividends pre-2012.	Yes	Third research objective results (Chapter 7).
3	Capital distributions post-2012 would be lower than capital distributions pre-2012.	Yes	Third research objective results (Chapter 7).
4	Specific repurchases from subsidiaries during 2011 would be lower, when compared to other periods, pending the introduction of dividends tax.	No	Third research objective results (Chapter 7).
5	General share repurchases post-2012 would be lower than general repurchases pre-2012.	No	Third research objective results (Chapter 7).
6	Specific repurchases post-2012 would be higher than specific repurchases pre-2012.	Mixed	Third research objective results (Chapter 7).
7	Additional shares issued in terms of scrip dividends post-2012 would be higher than pre-2012.	Yes	Third research objective results (Chapter 7).
8	Changes in the investor tax preference parameters of corporates would explain changes in payout methods more than other investor tax preference parameters considered.	Yes	Fourth research objective results (Chapter 8).

Support is accordingly submitted for five of the eight propositions and mixed support for one proposition. The fact that no support is submitted in respect of share repurchases, in proposition 4 and proposition 5, could be indicative of the importance of determinants other than tax in share repurchase decisions which is further supported by the findings in respect of payout other than dividends in Chapter 8 (section 8.5.2). The second, third and fourth research objectives were intended to triangulate evidence on the effect of investor-level tax reform by considering the different means by which payout policies could have been adjusted based on tax reform. As research objectives did provide evidence of the fact that payout policies were adjusted, based on support for propositions, the research question of this study is answered in the affirmative. An effect of investor-level tax reform on payout policies is submitted on the basis of the fact that payout policies were adjusted.

9.3 RESEARCH CONTRIBUTION

The research contribution of this study includes providing empirical evidence from a developing country perspective; a contribution to theory (the taxes and tax clienteles theory as well as the rent extraction hypothesis); a contribution to payout policy literature; and a contribution in respect of data collection.

The variation in tax systems between countries merits the argument for country-specific research as each country undergoing tax reform provides a unique setting to contribute to literature (Chapter 2). A lack of literature from developing countries, in particular, has been accentuated (Baker & Jabbouri, 2016). Tax reform in South Africa, a developing country, has been extensive since 2011 and includes a change in tax regime followed by consecutive increases in the applicable tax rates, which have provided a unique setting for empirical investigation (Chapter 3). The present study contributes to literature from a developing country perspective.

From a theoretical perspective, this study contributes to the taxes and tax clienteles theory by providing empirical evidence that the payout policies of selected companies were adjusted based on investor-level tax reform. This study is submitted as the first South African study to consider the after-tax values of payout methods, the timing of dividend declarations, the total payout of companies, and investor tax preference parameters to investigate the effect of investor-level tax reform on payout policies. The second research objective, relating to the timing of dividend declarations, contributes to literature by providing empirical evidence of the change in the timing of interim dividends in a year of change in tax regime. The third research objective, relating to the total payout of companies, contributes to literature by investigating total payout and not only employing the narrow definition of dividend payout applied in most finance literature relating to the effect of taxes (Allen & Michaely, 2003, p. 358). The fourth research objective contributes by the inclusion of investor tax preference parameters as a variable that reflects the differential of dividends tax and capital gains tax. The finding in respect of corporate investors expands on the previous findings of Badenhorst (2017) by providing empirical evidence, including a tax variable, which suggests that corporates could be more successful to lobby for beneficial dividend changes than other investors. Other studies in developed countries submitted expectations on a possible tax effect but found weak or no tax effect on payout policies (Bird, 2013; Geiler & Renneboog, 2015; Poterba, 2004). Contrary to previous studies set in developed countries, the short-run changes of investor tax preference parameters were found to have a significant effect on the changes in dividends based on registered shareholding in South Africa.

The findings in respect of investor tax preference parameters in South Africa accordingly contributed by providing results which differed from previous studies. From a theory perspective, this study further contributes evidence in respect of the rent extraction hypothesis. Ownership concentration was found to be associated with lower payout other than dividends in support of the rent extraction hypothesis (Chapter 8).

In respect of payout policy, investigating whether the differential taxation of dividends versus capital gains affects the supply of dividends has been pinpointed as an aspect for further research (Farre-Mensa et al., 2014, p. 103). This study provided empirical evidence that the differential taxation of dividends versus capital gains affected the supply of dividends based on two findings. Firstly, a decrease in the value of other payout methods was observed since the introduction of dividends tax (Chapter 7). As other payout methods could be subjected to capital gains tax, the fact that such payout methods had decreased and dividends had increased is submitted as evidence that the differential tax on dividends and capital gains affected the supply of dividends in South Africa. Secondly, this study included investor tax preference parameters, which incorporate both dividends tax and capital gains tax, as variables in regression analyses. As corporate investors are submitted as being the most affected by tax reform, based on the introduction of dividends tax and increases in capital gains tax, evidence is provided that their tax preference for dividends relative to capital gains tax could have affected the supply of dividends (Chapter 8).

In respect of data collection, this study contributes by compiling data on after-tax values of payout methods, total payout, investor shareholding (by individual, corporate, and institutional investors), and investor tax preference parameters of selected companies. The data collected are not readily available in a commercial or public database and could serve as a data source for future research endeavours.

9.4 CONTRIBUTION TO POLICY

An understanding of investors' preferences and corporate payout behaviour has been submitted as a prerequisite to efficient policy formulation (Chazi et al., 2018). An understanding of the impact of tax on corporate behaviour could, in turn, assist in revenue forecasting and could be considered in assessing the impact of proposed future tax-reform initiatives. From a regulatory perspective, changes in behaviour as a result of changes in tax legislation are of interest to those charged with fiscal responsibility (Badenhorst, 2017). The policy implications of this study are that findings could be informative to government regarding the impact of tax reforms on corporate behaviour.

The policy implications of the study presented in Chapter 7 are that the increasing use of ordinary dividends as payout method, and a decrease in the use of other payout methods, could inform future tax reform initiatives to generate revenue or stimulate growth using tax incentives. In the light of the increasing use of ordinary dividends, any further increase in the rate of dividends tax is not advisable since investors that do not qualify for dividends tax exemption could be discouraged from investing in South African companies. Higher dividend tax rates could also induce companies to retain earnings instead of paying dividends which could lead to inefficient investment and create substantial efficiency costs (Herron & Platt, 2021). The increase in the dividends tax rate in South Africa from 15% to 20% since early 2017 (Table 5.1) coincided with poor economic conditions from 2016 based on which lower dividend payout was noted (Figure 7.1). The lower dividend payout during 2017 and 2018 could suggest a retention of earnings by companies which could result in inefficient investment and create substantial efficiency costs, as contemplated by Herron and Platt (2021), if not solely attributable to the poor economic conditions noted since 2016. Further increases in the rate of dividends tax are accordingly not advisable so as not to discourage investments in South African companies and not to encourage retention of earnings by companies which could result in inefficient investment and create substantial efficiency costs.

9.5 LIMITATIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

The study was subject to limitations, as detailed under section 4.10, which could provide an opportunity for future research. As the study focused on selected companies (excluding companies with a secondary listing on the JSE as well as companies in the resources and the financial sectors), the results are not generalisable to all companies on the JSE. A focus of future research could be to consider the effect of investor-level tax reform on the payout policies of companies not included in the population of the present study.

The data collection of this study was from annual financial statements and two financial databases (IRESS and Refinitiv Eikon), resulting in payout data and shareholding data collected being inherently dependent on these data sources in respect of completeness and validity. Despite this study electing reputable databases from options available and implementing a rigorous data collection method, the reliance on databases and annual financial statements could represent a data limitation. A focus of future research could be to consider alternative databases and data sources in investigating the effect of investor-level tax reform on payout policies of companies.

The following specific recommendations stem from the limitations of the present study and the possible areas for expansion identified in the present study:

First recommendation: Expansion of investigations into the trend and composition of total payout

In Chapter 7 the trend and composition of total payout were investigated without consideration of the financing of payout methods or company life-cycle theory as an explanation for changes in the composition of payout. The interaction between equity financing (internal or external) and debt financing (with a possible tax gain from leverage) has been considered in literature by the inclusion of a composite tax rate (Kemsley et al., 2018).

A recommendation for future research could be the inclusion of a composite tax rate in empirical investigations in South Africa. As the payout of companies over a period was investigated, companies would have matured over time and in terms of the company life-cycle theory more mature companies could be associated with higher dividends. The company life-cycle theory was not explored in the present study and is submitted as a potential area for further research. A recommendation for future research is to incorporate the financing of payout methods as well as company life-cycle theory in an investigation of tax reform on payout policies.

The present study also recognises that the issuing of a new class of shares could have an effect on the payout of existing shares in issue, however, the present study did not control for the effect of issuing new shares (refer to section 4.7.3). A recommendation for future research is to also control for the effect of issuing a new class of shares in investigating the trend and composition of payout methods of companies.

Second recommendation: Further focus on constant shareholding in future research

In Chapter 8 first differencing was applied to variables (except for the lagged levels of variables and ownership concentration dummy variables) in investigating the relationship between changes in payout and changes in investor tax preference parameters. First differencing is ineffective when explanatory variables do not vary much over time and results in the loss of data in respect of the first period because of differencing (Wooldridge, 2013, pp. 473–474). Applying first differencing in this study resulted in instances where the shareholding or tax preference of investors remained constant, only being considered to a limited extent. Constant shareholding was only considered in this study by means of ownership concentration dummy variables depicting the presence of the largest shareholder of companies, which could have remained constant from one year to another. This study attempted to overcome this limitation by including both registered and beneficial shareholding in regression

analyses – as changes in registered and beneficial shareholding could differ, this study included changes in tax preferences parameters not solely from one source.

As this study only included a limited focus on instances of constant shareholding, the data collection of the study could well enable future research endeavours which include consideration of the effect of investor-level tax preferences in the context of constant shareholding. A recommendation for future research is an analysis of investor tax preference parameters and payout policies without applying first differencing to further investigate the potential effect of constant shareholding.

Third recommendation: Determination of ultimate beneficial investors in future research

Owing to data availability and the challenges pinpointed in identifying the ultimate beneficial investors, this study did not attempt to determine the tax position of institutions based on the tax position of the clients they serve. The effect of ultimate ownership structures (e.g. pyramidal ownership structures, cross-holdings, and multiple-class shares) on the relationship between taxation and dividend policy has been submitted as a potential avenue for future research (Baker & Weigand, 2015, p. 139). This study considered ownership without consideration of pyramidal ownership structures, cross-holdings, and multiple-class shares, resulting in an opportunity for future research.

A recommendation for future research is a further attempt at considering additional sources of data in order to determine the ultimate beneficial owners in investigating the relationship between investor tax preference parameters and payout policies.

Fourth recommendation: Expansion of investigations in respect of ownership concentration

The present study investigated the relationship between ownership concentration and payout methods by means of dummy variables with a focus on investor tax preferences. Findings of the present study support the rent extraction hypothesis based on the presence of a top individual shareholder being associated with lower payout other than dividends. The role of ownership structure, especially ownership concentration of large shareholders, is an important topic in corporate governance which could impact firm value (Faisal et al., 2020) and accordingly warrant further research in a South African context.

Future studies could expand on literature in respect of ownership concentration and payout policies by employing the instrumental variable approach of Harada and Nguyen (2011) which controls for the endogeneity of ownership and other factors such as firm age.

Fifth recommendation: Expansion of cross-country investigations into the effect of taxes

This study employed the calculation of after-tax values and the regression model specified by Geiler and Renneboog (2015) in an attempt to enable a cross-country comparison of findings. Future studies could expand on the investigation by employing the same model for further cross-country comparison. Studies from other developing countries could, in particular, be beneficial to contribute to cross-country comparison between South Africa and other developing countries.

Sixth recommendation: Expansion of investigations into the effect of taxes on real decisions

The effect of dividend taxation on the real decisions of companies (such as investments, research and development, compensation, and cash holding) is an aspect suggested by Farre-Mensa et al. (2014, p. 102). Based on the literature review performed, no South African study was identified which had considered the effect of dividend taxes on the real decisions of companies. This, therefore, provides an opportunity for further research.

Seventh recommendation: Consideration of preference shares, anti-avoidance aspects, and double tax agreements in future research

In investigating the effect of investor-level tax reform, the study excluded preference shares, anti-avoidance aspects, and implications of a double tax agreement (limitation in scope detailed in Chapter 4). A recommendation for future research is to expand on the present study by the inclusion of these aspects in investigating the effect of taxes on payout policies.

9.6 CONCLUDING REMARKS

Payout policies could affect valuation, investment decisions as well as the taxes investors would pay and are therefore central to corporate finance questions (Farre-Mensa et al., 2014, p. 76). The lack of consensus on the motivations for paying dividends was described as the ‘dividend puzzle’ four decades ago by Black (1976) and remains unsolved despite much research and extensive debate (Al-Najjar & Kilincarslan, 2019). Solving the dividend puzzle has become more challenging with the inclusion of additional factors such as company characteristics, market characteristics, and substitute forms of dividends (Baker & Weigand, 2015).

Empirical evidence in respect of the taxes and tax clienteles theory as an explanation for dividend relevance provides mixed support based on previous literature (Baker & Weigand, 2015). This study contributed to the literature in respect of the taxes and tax clienteles theory from a developing country perspective by exploiting data not previously included in South African literature (namely, the after-tax values of payout methods, the timing of dividend declarations, the trend and composition of total payout, and investor tax preference parameters).

The empirical evidence of this study suggests an effect of investor-level tax reform on the payout policies of selected listed companies in South Africa. An effect of investor-level tax reform on payout policies is submitted on the basis of the fact that payout policies were adjusted. Evidence from South Africa as a developing country and emerging market contributes to literature on dividend policy practices in emerging markets. The policy implications of this study are that findings could be informative to government regarding the impact of tax reforms on corporate behaviour. The increasing use of dividends as payout method since the introduction of dividends tax could be informative to government when further tax reform relating to dividends is considered.

The limitations and recommendations of this study provide for further areas of research into tax as motivation for payout methods to add more pieces to the complex dividend puzzle.

REFERENCES

Abernathy, J. L., Barnes, M., Stefaniak, C., & Weisbarth, A. (2017). An international perspective on audit report lag: A synthesis of the literature and opportunities for future research. *International Journal of Auditing, 21*(1), 100–127. https://doi.org/10.1111/ijau.12083

Abor, J., & Fiador, V. (2013). Does corporate governance explain dividend policy in sub-Saharan Africa? *International Journal of Law and Management, 55*(3), 201–225. https://doi.org/10.1108/17542431311327637

Abraham, M., Marsden, A., & Poskitt, R. (2015). Determinants of a firm's decision to utilize a dividend reinvestment plan and shareholder participation rates: Australian evidence. *Pacific-Basin Finance Journal, 31*, 57–77. https://doi.org/10.1016/j.pacfin.2014.12.003

Adcock Ingram Limited. (2019). *Integrated report for the year ended 30 June 2019*.

ADvTech Limited. (2019). *Annual financial statements for the year ended 31 December 2019*.

Al-Najjar, B., & Kilincarslan, E. (2019). What do we know about the dividend puzzle? – A literature survey. *International Journal of Managerial Finance, 15*(2), 205–235. https://doi.org/10.1108/IJMF-03-2018-0090

Allen, F., Bernardo, A. E., & Welch, I. (2000). A theory of dividends based on tax clienteles. *The Journal of Finance, 55*(6), 2499–2536. https://doi.org/10.1111/0022-1082.00298

Allen, F., & Michaely, R. (2003). Payout policy. In G. M. Constantinides, M. Harris, & R. M. Stulz (Eds.), *Handbook of the economics of finance* (vol. 1, pp. 337–429). Elsevier.

Alstadsæter, A., & Fjærli, E. (2009). Neutral taxation of shareholder income? Corporate responses to an announced dividend tax. *International Tax and Public Finance, 16*(4), 571–604. https://doi.org/10.1007/s10797-009-9107-2

Altron Limited. (2015). *Integrated annual report for the year ended 28 February 2015.*

Alzahrani, M., & Lasfer, M. (2012). Investor protection, taxation, and dividends. *Journal of Corporate Finance, 18*(4), 745–762. https://doi.org/10.1016/j.jcorpfin.2012.06.003

Amidu, M., & Abor, J. (2006). Determinants of dividend payout ratios in Ghana. *The Journal of Risk Finance, 7*(2), 136–145. https://doi.org/10.1108/15265940610648580

Amiram, D., Bauer, A. M., & Frank, M. M. (2016). *Tax avoidance at public corporations driven by shareholder taxes: Evidence from changes in dividend tax policy.* Darden Business School (Working Paper Series No. 2111467). http://dx.doi.org/10.2139/ssrn.2111467

Andres, C., Doumet, M., Fernau, E., & Theissen, E. (2015). The Lintner model revisited: Dividends versus total payouts. *Journal of Banking & Finance, 55*, 56–69. https://doi.org/10.1016/j.jbankfin.2015.01.005

Arko, A. C., Abor, J., Adjasi, C. K. D., & Amidu, M. (2014). What influence dividend decisions of companies in sub-Saharan Africa? *Journal of Accounting in Emerging Economies, 4*(1), 57–78. https://doi.org/10.1108/JAEE-12-2011-0053

Arora, R. K., & Srivastava, A. (2019). Ownership concentration and dividend payout in emerging markets: Evidence from India. *Global Business Review*, 1–13. https://doi.org/10.1177/0972150918824953

Badenhorst, W. M. (2017). Tax preferences, dividends and lobbying for maximum value. *South African Journal of Economic and Management Sciences, 20*(1), 1–10. http://dx.doi.org/10.4102/sajems.v20i1.1476

Bae, J. (2017). Dividend payout ratio, tax rates, and share repurchase. *Journal of Economic Theory and Econometrics*, *28*(4), 40–60.

Baker, H. K., & Jabbouri, I. (2016). How Moroccan managers view dividend policy. *Managerial Finance, 42*(3), 270–288. https://doi.org/10.1108/MF-07-2015-0211

Baker, H. K., Kapoor, S., & Jabbouri, I. (2018). Institutional perspectives of dividend policy in India. *Qualitative Research in Financial Markets, 10*(3), 324–342. https://doi.org/10.1108/QRFM-07-2017-0067

Baker, H. K., & Weigand, R. (2015). Corporate dividend policy revisited. *Managerial Finance, 41*(2), 126–144. https://doi.org/10.1108/MF-03-2014-0077

Baker, M., & Wurgler, J. (2004). A catering theory of dividends. *The Journal of Finance, 59*(3), 1125–1165. https://doi.org/10.1111/j.1540-6261.2004.00658.x

Balachandran, B., Khan, A., Mather, P., & Theobald, M. (2017). Insider ownership and dividend policy in an imputation tax environment. *Journal of Corporate Finance, 54*, 153–167. https://doi.org/10.1016/j.jcorpfin.2017.01.014

Becker, B., Jacob, M., & Jacob, M. (2013). Payout taxes and the allocation of investment. *Journal of Financial Economics*, *107*(1), 1-24. http://dx.doi.org/10.1016/j.jfineco.2012.08.003

Bell Equipment Limited. (2019). *Annual financial statements for the year ended 31 December 2019*.

Belousova, A. A., Gurianov, P. A., Melnichuk, A. V., Vinichenko, M. V., & Duplij, E. V. (2016). Dividend payments and cross-country differences in the choice of dividend. *International Journal of Economics and Financial Issues, 6*(1S), 46–51.

Bester, P. G. (2008). *Shareholder distribution choices for industrial companies listed on the JSE: Share buybacks versus dividends* (Master's thesis, Stellenbosch University, Bellville, South Africa).

Bester, P. G., Wesson, N., & Hamman, W. D. (2010). Share buy-backs for a selection of JSE-listed companies: An exploratory study. *South African Journal of Business Management, 41*(4), 47–58. https://hdl.handle.net/10520/EJC22401

Bhana, D. (2006). The company law implications of conferring a power on a subsidiary to acquire the shares of its holding company. *Stellenbosch Law Review*, *17*(2), 232–250. https://hdl.handle.net/10520/EJC54595

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

Bidvest Group Limited. (2016). Integrated report for the year ended 30 June 2016.

Bird, A. (2013). *Dividends and shareholder taxation: Evidence from Canada*. Unpublished paper. Tepper School of Business, Carnegie Mellon University, Pittsburgh, Pennsylvania.

Black, F. (1976). The dividend puzzle. *Journal of Portfolio Management*, *2*(2), 5–8.

Bloomberg. (n.d.). *Getting started with the Bloomberg. Help page for ownership*.

Booth, L., & Zhou, J. (2017). Dividend policy: A selective review of results from around the world. *Global Finance Journal, 34*, 1–15. https://doi.org/10.1016/j.gfj.2017.07.002

Brav, A., Graham, J. R., Harvey, C. R., & Michaely, R. (2005). Payout policy in the 21st century. *Journal of Financial Economics, 77*(3), 483–527. https://doi.org/10.1016/j.jfineco.2004.07.004

Brav, A., Graham, J. R., Harvey, C. R., & Michaely, R. (2008). Managerial response to the May 2003 dividend tax cut. *Financial Management, 37*(4), 611–624. https://doi.org/10.1111/j.1755-053X.2008.00027.x

Breusch, T. S., & Pagan, A. R. (1979). A simple test for heteroscedasticity and random coefficient variation. *Econometrica: Journal of the Econometric Society*, *47*(5), 1287–1294. https://doi.org/10.2307/1911963

Brown, C., & Davis, K. (2020). Tax-driven off-market buybacks (TOMBs): Time to lay them to rest. *Australian Tax Forum*, 35(1), 232–257. https://www.taxinstitute.com.au/tiausttaxforum/tax-driven-off-market-buybacks-tombs-time-to-lay-them-to-rest

Burns, R. B., & Burns, R. A. (2008). *Business research methods and statistics using SPSS*. SAGE Publications.

Carrim, S. (2012). *An analysis of share buybacks in South Africa* (Master's thesis, University of Johannesburg, Johannesburg, South Africa). http://hdl.handle.net/10210/9549

Cassim, F. H. (2003). The repurchase by a company of its own shares: The concept of treasury shares. *South African Law Journal, 120*(1), 137–152. https://hdl.handle.net/10520/EJC53448

Cassim, F. H. (2010). The challenge of treasury shares. *Acta Juridica, 1*, 151–164. https://hdl.handle.net/10520/EJC52744

Chazi, A., Theodossiou, A., & Zantout, Z. (2018). Corporate payout-form: Investors' preference and catering theory. *Managerial Finance, 44*(12), 1418–1433. https://doi.org/10.1108/MF-03-2018-0127

Chinhema, M. (2014). *Dividend tax changes and ex-dividend behaviour: The case of South Africa* (Master's thesis, University of Cape Town, Cape Town, South Africa). http://hdl.handle.net/11427/17587

Chivaka, R., Siddle, A., Bayne, L., Cairney, C., & Shev, J. (2009). Reasons for share repurchases in South Africa: Theory versus practice. *South African Journal of Accounting Research, 23*(1): 1–30. https://doi.org/10.1080/10291954.2009.11435137

Chuang, S. T., Chen, Y. H., Lin, C. C., & Lee, W. C. (2018). The impact of tax deduction ratio reduction on dividend payouts under the integrated tax system: Evidence from Taiwan. *International Journal of Financial Research, 9*(3), 26–35. https://doi.org/10.5430/ijfr.v9n3p26

Cliffe Dekker Hofmeyr. (2011). *Dividends and distributions.* SAICA Integritax 1979. https://www.saica.co.za/integritax/2011/1979._Dividends_and_distributions..htm

Cobbett, J. (2008, 20 February*).* R6bn STC "gift" for pension funds. *Moneyweb*. http://www.moneyweb.co.za/archive/r6bn-stc-gift-for-pension-funds/

Coetzee, S., & De Wet, J. (2014). Dividend tax, dividend payments and share values: A South African perspective. *Corporate Ownership and Control, 11*(3), 242–252. http://doi.org/10.22495/cocv11i3c2p3

Correia, C., Flynn, D., Uliana, E., Wormald, M., & Dillon, J. (2015). *Financial management* (8th ed.). Juta.

Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). SAGE Publications.

Dahlquist, M., Robertsson, G., & Rydqvist, K. (2014). Direct evidence of dividend tax clienteles. *Journal of Empirical Finance*, *28*, 1–12. https://doi.org/10.1016/j.jempfin.2014.05.003

Dasilas, A., & Grose, C. (2019). Valuation effects of tax-free versus taxed cash distributions. *International Review of Financial Analysis*, *63*, 307–321. https://doi.org/10.1016/j.irfa.2018.12.013

David, T., & Ginglinger, E. (2016). When cutting dividends is not bad news: The case of optional stock dividends. *Journal of Corporate Finance, 40*, 174–191. https://doi.org/10.1016/j.jcorpfin.2016.07.008

Davids, E., & Kitcat, R. (2019). Chapter 12: South Africa. In F. J. Aquila (Ed.), *The shareholder rights and activism review* (4th ed., pp. 125–135). Law Business Research Ltd.

DeAngelo, H., DeAngelo, L., & Skinner, D. J. (2009). Corporate payout policy. *Foundations and Trends in Finance, 3*(2–3), 95–287. http://dx.doi.org/10.1561/0500000020

DeAngelo, H., DeAngelo, L., & Stulz, R. M. (2006). Dividend policy and the earned/contributed capital mix: A test of the life-cycle theory. *Journal of Financial Economics*, *81*(2), 227–254. https://doi.org/10.1016/j.jfineco.2005.07.005

Deneys Reitz. (1999). *Share buybacks: The tax implications*. SAICA Integritax 737. https://www.saica.co.za/integritax/1999/737_Share_buybacks_the_tax_implications.htm

Desai, M. A., & Jin, L. (2011). Institutional tax clienteles and payout policy. *Journal of Financial Economics, 100*(1), 68–84. https://doi.org/10.1016/j.jfineco.2010.10.013

Deslandes, M., Landry, S., & Fortin, A. (2015). The effects of a tax dividend cut on payout policies: Canadian evidence. *International Journal of Managerial Finance, 11*(1), 2–22. https://doi.org/10.1108/IJMF-05-2014-0081

Dewasiri, N. J., Yatiwelle Koralalage, W. B., Abdul Azeez, A., Jayarathne, P., Kuruppuarachchi, D., & Weerasinghe, V. A. (2019). Determinants of dividend policy: Evidence from an emerging and developing market. *Managerial Finance, 45*(3), 413–429. https://doi.org/10.1108/MF-09-2017-0331

De Vries, A., Erasmus, P. D., Hamman, W. D., & Wesson, N. (2012). The effect of specific share repurchases on South African payout ratios: An exploratory study. *Risk Governance and Control: Financial Markets and Institutions, 2*(31), 7–16. http://dx.doi.org/10.22495/rgcv2i1art5

Dube, T. (2018). *An analysis of effects of ownership on capital structure and corporate performance of South African companies* (Doctoral dissertation, University of Pretoria, Pretoria, South Africa). http://hdl.handle.net/2263/67994

Durbin, J., & Watson, G. S. (1950). Testing for serial correlation in least squares regression. *Biometrika*, *37*(3/4), 409–428. https://doi.org/10.2307/2332391

Duri, J., & Matasane, M. A. (2017). Regulation of beneficial ownership in South Africa and Zimbabwe. *Journal of Anti-Corruption Law*, *1*(2), 175–195.

Edward Nathan Sonnenbergs. (2007). *Share buy-backs – Part III.* SAICA Integritax 1575.

Edwards, J. M., & Holmes Finch, W. (2018). Missing data analysis. In B. B. Frey (Ed.), *The SAGE encyclopedia of educational research, measurement and evaluation* (pp. 1067–1069). SAGE Publications.

Engel, K. (2016). Tax-free conversions of hedge funds: Not so simple? *TAXtalk*, *2016*(56), 64–65.

Ensor, L. (2017, March 9). Treasury acting fast on dividends tax to prevent avoidance. *Sunday Times Business*. http://www.timeslive.co.za

Faisal, F., Majid, M. S. A., & Sakir, A. (2020). Agency conflicts, firm value, and monitoring mechanisms: An empirical evidence from Indonesia, *Cogent Economics Finance*, 8(1). https://doi.org/10.1080/23322039.2020.1822018

Fama, E. F., & French, K. R. (2001). Disappearing dividends: Changing firm characteristics or lower propensity to pay? *Journal of Financial economics, 60*(1), 3–43. https://doi.org/10.1016/S0304-405X(01)00038-1

Farre-Mensa, J., Michaely, R., & Schmalz, M. C. (2014). Payout policy. *Annual Review of Financial Economics, 6*, 75–134. https://doi.org/10.1146/annurev-financial-110613-034259

Feito-Ruiz, I., Renneboog, L., & Vansteenkiste, C. (2020). Elective stock and scrip dividends. *Journal of Corporate Finance*, 64, 1–24. https://doi.org/10.1016/j.jcorpfin.2020.101660

Feng, C., Wang, H., Lu, N., Chen, T., He, H., Lu, Y., & Tu, X. M. (2014). Log-transformation and its implications for data analysis. *Shanghai Archives of Psychiatry*, *26*(2), 105–109.

Filen, C. (2011, November 21). STC change to dividend withholding tax. *Moneyweb*. http://www.moneyweb.co.za/archive/stc-change-to-dividend-withholding-tax/

Firer, C., Gilbert, E., & Maytham, A. (2008). Dividend policy in South Africa. *Investment Analysts Journal, 68*, 5–19. https://doi.org/10.1080/10293523.2008.11082500

Fouché, C. (2012). *Taxation consequences of providing shares to employees through a trust* (Master's thesis, University of Pretoria, Pretoria, South Africa). http://hdl.handle.net/2263/23502

Ganesh, S., & Suresh, M. (2018). Dividend payout determinants: Indian companies. *International Journal of Pure and Applied Mathematics, 118*(18), 1529–1537.

Geiler, P., & Renneboog, L. (2015). Taxes, earnings payout, and payout channel choice. *Journal of International Financial Markets, Institutions and Money, 37*, 178–203. https://doi.org/10.1016/j.intfin.2015.01.005

Ghosn, F. A. (2019). Elements influencing dividends of banks in the MENA region. *Research Journal of Finance and Accounting, 10*(12), 67–77. doi: 10.7176/RJFA

Goergen, M., & Renneboog, L. (2001). Investment policy, internal financing and ownership concentration in the UK. *Journal of Corporate Finance*, *7*(3), 257–284. https://doi.org/10.1016/S0929-1199(01)00022-0

Gondwe, R. D. (2015). *Incomplete company law reform: The treasury shares question in South Africa* (Master's thesis, University of Cape Town, Cape Town, South Africa). http://hdl.handle.net/11427/15182

Gonzalez, M., Molina, C. A., Pablo, E., & Rosso, J. W. (2017). The effect of ownership concentration and composition on dividends: Evidence from Latin America. *Emerging Markets Review*, *30*, 1–18. https://doi.org/10.1016/j.ememar.2016.08.018

Graham, J. R. (2013). Do taxes affect corporate decisions? A review. *Handbook of the economics of finance* (vol. 2, pp. 123–210). Elsevier. https://doi.org/10.1016/B978-0-44-453594-8.00003-3

Graham, M. (1999). The effect of STC on earnings retention. *South African Journal of Accounting Research, 13*(1), 63–75. https://doi.org/10.1080/10291954.1999.11435085

Grant, M. J., & Booth, A. (2009). A typology of reviews: An analysis of 14 review types and associated methodologies. *Health Information & Libraries Journal*, *26*(2), 91–108. https://doi.org/10.1111/j.1471-1842.2009.00848.x

Grindrod Limited. (2019). *Integrated annual report for the year ended 31 December 2019*.

Hanlon, M., & Hoopes, J. L. (2014). What do companies do when dividend tax rates change? An examination of alternative payout responses. *Journal of Financial Economics, 114*(1), 105–124. http://dx.doi.org/10.2139/ssrn.2065628

Hanlon, M., Hoopes, J. L., & Slemrod, J. (2019). Tax reform made me do it! *Tax Policy & the Economy*, *33*(1), 33–80. https://doi-org.ez.sun.ac.za/10.1086/703226

Hao, L., & Naiman, D. Q. (2007). Interpretation of monotone-transformed QRM. In L. Hao, & D. Q. Naiman (Eds.), *Quantitative applications in the social sciences: Quantile regression* (pp. 78–91). SAGE Publications. https://dx.doi.org/10.4135/9781412985550.n6

Harada, K., & Nguyen, P. (2011). Ownership concentration and dividend policy in Japan. *Managerial Finance*, *37*(4), 362–379. https://doi.org/10.1108/03074351111115313

Harding, M., & Marten, M. (2018). *Statutory tax rates on dividends, interest and capital gains: The debt equity bias at the personal level.* OECD Taxation (Working Papers, No. 34). OECD Publishing. https://doi.org/10.1787/1aa2825f-en

Hastings, S. L. (2010). Triangulation. In N. J. Salkind (Ed.), *Encyclopedia of research design* (pp. 1538–1541). SAGE Publications. https://dx.doi.org/10.4135/9781412961288

He, W., & Li, C. K. (2018). The effects of a comply-or-explain dividend regulation in China. *Journal of Corporate Finance, 52*, 53–72. https://doi.org/10.1016/j.jcorpfin.2018.07.002

Herron, R., & Platt, K. (2021). World dividends and tax shocks. *Global Finance Journal, 47*. https://doi.org/10.1016/j.gfj.2020.100516

Hofstee, E. (2006). *Constructing a good dissertation: A practical guide to finishing a master's, MBA or PhD on schedule*. EPE.

Holmen, M., Knopf, J. D., & Peterson, S. (2008). Inside shareholders' effective tax rates and dividends. *Journal of Banking & Finance, 32*(9), 1860–1869.

Hunt, K. (2014). *Is Treasury broadening the divide between shareholders and employees – An analysis of the role taxation plays in share incentive plans* (Master's thesis, University of Cape Town, Cape Town, South Africa). http://hdl.handle.net/10539/15227

Huxham, K., & Haupt, P. (2008). *Notes on South African income tax 2008*. H & H Publications.

Hyde, K. F. (2000). Recognising deductive processes in qualitative research. *Qualitative Market Research: An International Journal, 3*(2), 82–90. https://doi.org/10.1108/13522750010322089

IASB (International Accounting Standards Board). (2018a). IAS 32 Financial Instruments Presentation. IASB, London, United Kingdom.

IASB (International Accounting Standards Board). (2018b). IAS 10 Events After the Reporting Period. IASB, London, United Kingdom.

IRESS (n.d.). *Research domain user guide: IRESS research domain – Download manuals*. http://www.researchdomain.iress.co.za

Isaacman, A. J. (2017). *Is tax legislation effectively discouraging employee share ownership* (Master's thesis, University of Witwatersrand, Johannesburg, South Africa).

Ismail, I. S., Palil, M. R., Ramli, R., & Rahman, M. R. C. A. (2018). Effects of dividend tax reform on dividend behavior: A clientele theory approach. *Jurnal Pengurusan (UKM Journal of Management), 54*. https://doi.org/10.17576/pengurusan-2018-54-14

Ivanova, A., Keen, M., & Klemm, A. (2005). The Russian 'flat tax' reform. *Economic Policy, 20*(43), 398–444. https://www.jstor.org/stable/3601019

Jabbouri, I. (2016). Determinants of corporate dividend policy in emerging markets: Evidence from MENA stock markets. *Research in International Business and Finance, 37*, 283–298. https://doi.org/10.1016/j.ribaf.2016.01.018

Jabbouri, I., & Attar, A. E. (2018). The dividend paradox: A literature review. *International Journal of Markets and Business Systems*, *3*(3), 197–221. https://doi.org/10.1504/IJMABS.2018.093292

Jacob, C., & Lukose, P. J. (2018). Institutional ownership and dividend payout in emerging markets: Evidence from India. *Journal of Emerging Market Finance, 17*(1S), 54S–82S. https://doi.org/10.1177/0972652717751538

Jacob, M., & Jacob, M. (2013). Taxation, dividends, and share repurchases: Taking evidence global. *Journal of Financial and Quantitative Analysis, 48*(4), 1241–1269. https://www.jstor.org/stable/43303839

Jacob, M., & Michaely, R. (2017). Taxation and dividend policy: the muting effect of agency issues and shareholder conflicts. *The Review of Financial Studies*, *30*(9), 3176-3222. https://doi.org/10.1093/rfs/hhx041

Jansson, E., & Janesiripanich, C. (2018). *Why would companies choose dividends over share repurchases? The relationship between payout policy and companies' value in Sweden* (Master's thesis, Lund University, Lund, Sweden).

Jiang, X., Zhang, C., Jia, J., & Yu, S. (2019). Individual investors' dividend taxes and corporate innovation: Evidence from China. *China Journal of Accounting Studies, 6*(3), 394-420. https://doi.org/10.1080/21697213.2018.1567123

Johnston, A. (2019). Directors' remuneration: To engage or not to engage? *Without Prejudice*, *19*(2), 10-14. https://hdl.handle.net/10520/EJC-146361b763

JSE (Johannesburg Stock Exchange). (2016). Glossary of investment and stock market terms – JSE. https://www.jse.co.za/investor-type/individual/glossary

JSE (Johannesburg Stock Exchange). (2017). JSE Listings Requirements. Service issue no. 25. Johannesburg: LexisNexis Butterworths.

JSE (Johannesburg Stock Exchange). (2019a). JSE Corporate Actions – Definitions. https://www.jse.co.za

JSE (Johannesburg Stock Exchange). (2019b). JSE Equities Shares. https://www.jse.co.za/trade/equity-market/equities/shares/n-ordinary-shares

JSE (Johannesburg Stock Exchange). (2020a). COVID-19: Cancellation, changes and postponement of payment of dividends after declaration date. *JSE Letter*, 30 March 2020.

JSE (Johannesburg Stock Exchange). (2020b). COVID-19: Payments of dividends. *JSE Letter*, 2 April.

KayDav Group Limited. (2019). *Integrated annual report for the year ended 31 December 2019*.

Kemsley, D., Sivadasan, P., & Subramaniam, V. (2018). The composite dividend tax rate. *Accounting and Business Research*, *48*(7), 727–758. https://doi.org/10.1080/00014788.2018.1433526

Khan, N. U., Jehan, Q. U. A. S., & Shah, A. (2017). Impact of taxation on dividend policy: Evidence from Pakistan. *Research in International Business and Finance, 42*, 365–375.

Knechel, W. R., & Payne, J. L. (2001). Additional evidence on audit report lag. *Auditing: A Journal of Practice & Theory, 20*(1), 137–146. https://doi.org/10.2308/aud.2001.20.1.137

Koenker, R. (2017). Quantile regression: 40 years on. *Annual Review of Economics*, *9*, 155–176. https://doi.org/10.1146/annurev-economics-063016-103651

Koenker, R., & Hallock, K. F. (2001). Quantile regression. *Journal of Economic Perspectives*, *15*(4), 143–156. https://pubs.aeaweb.org/doi/pdfplus/10.1257/jep. 15.4.143

Korinek, A., & Stiglitz, J. E. (2009). Dividend taxation and intertemporal tax arbitrage. *Journal of Public Economics, 93*(1), 142–159. https://doi.org/10.1016/j.jpubeco.2008.08.001

Korkeamaki, T., Liljeblom, E., & Pasternack, D. (2010). Tax reform and payout policy: Do shareholder clienteles or payout policy adjust? *Journal of Corporate Finance, 16*(4), 572–587. https://doi.org/10.1016/j.jcorpfin.2009.12.003

KPMG. (2016). South Africa's Economic Misery Index – Not as bad as during previous crises. https://home.kpmg/za/en/home/home/press-releases

Krupa, T., & Utke, S. (2020). *Whose taxes matter? The effects of institutional ownership on dividend payout policy around tax rate changes*. http://dx.doi.org/10.2139/ssrn.3271931

Labhane, N. B. (2017). Disappearing and reappearing dividends in emerging markets: Evidence from Indian companies. *Journal of Asia-Pacific Business, 18*(1), 46–80. https://doi.org/10.1080/10599231.2017.1272996

Lamyaa, L., & Karima, T. (2017). Dividend policy and taxation: A review. *International Journal of Economics, Commerce and Management, 5*(3), 82–94.

Lasfer, M. A. (1997). On the motivation for paying scrip dividends. *Financial Management, 26*(1), 62–80. https://www.jstor.org/stable/3666240

Lewis Group Limited. (2016). *Integrated annual report for the year ended 31 March 2016.*

Li, O., Liu, H., Ni, C., & Ye, K. (2017). Individual investors' dividend taxes and corporate payout policies. *Journal of Financial and Quantitative Analysis, 52*(3), 963–990.

Lie, E., & Lie, H. J. (1999). The role of personal taxes in corporate decisions: An empirical analysis of share repurchases and dividends. *Journal of Financial and Quantitative Analysis, 34*(4), 533–552. https://www.jstor.org/stable/2676233

Lily, J., Venkatesh, S., & Sukserm, T. (2009). Determinants of dividend payout in Thailand. *UBU Journal, 11*(3), 73–81.

Lintner, J. (1956). Distribution of incomes of corporations among dividends, retained earnings, and taxes. *The American Economic Review, 46*(2), 97–113. https://www.jstor.org/stable/1910664

Liu, J. C., Chiou, J. J., & Yang, C. C. (2014). Payout policy in Taiwan: Cash dividends, stock repurchases and capital reduction. *Review of Securities and Futures Markets*, *26*(3), 47–96. http://dx.doi.org/10.2139/ssrn.2140337

Liu, J. C., Lee, S. C., & Liauh, Y. H. (2015). Capital reductions through repurchasing shares versus distributing cash: From the perspective of corporate life-cycle stage and capital structure. *Journal of the Chihlee Institute of Technology*, *35*, 1–34. https://ssrn.com/abstract=2688927

Lock, N. (2016). *Dividend payments from employee share scheme trusts* (Master's thesis, University of Cape Town, Cape Town, South Africa). http://hdl.handle.net/11427/25366

Lu, Y., & Westfall, P. (2019). Simple and flexible Bayesian inferences for standardised regression coefficients. *Journal of Applied Statistics*, *46*(12), 2254–2288.

MacKinnon, J. G., & White, H. (1985). Some heteroskedasticity-consistent covariance matrix estimators with improved finite sample properties. *Journal of Econometrics*, *29*(3), 305–325. https://doi.org/10.1016/0304-4076(85)90158-7

Mans-Kemp, N., & Viviers, S. (2015). The relationship between corporate governance and dividend payout ratios: A South African study. *Management Dynamics: Journal of the Southern African Institute for Management Scientists, 24*(2), 20–35. https://hdl.handle.net/10520/EJC174652

Marcus, M., & Gore, T. (2008, May). Crackdown on treasury share repurchases. *Business Day, Business Law & Tax Review*.

Marcus, M., & Toerien, F. (2014). The relative cost of internal vs. external equity in South Africa: The impact of capital gains and dividend taxes. *South African Journal of Accounting Research, 28*(1), 97–116. https://doi.org/10.1080/10291954.2014.11463129

Martins, T. C., & Novaes, W. (2012). Mandatory dividend rules: Do they make it harder for companies to invest? *Journal of Corporate Finance, 18*(4), 953–967.

Massmart Holdings Limited. (2019). *Annual financial statements for the year ended December 2019.*

McKerchar, M. (2008). Philosophical paradigms, inquiry strategies and knowledge claims: Applying the principles of research design and conduct to taxation. *Ejournal of Tax Research*, *6*(1), 5–22.

Metair Investments Limited. (2019). *Integrated annual report for the year ended 31 December 2019.*

Miller, M. H., & Modigliani, F. (1961). Dividend policy, growth and the valuation of shares. *Journal of Business, 34*, 411–433. http://dx.doi.org/10.1086/294442

Minnick, K., & Rosenthal, L. (2014). Stealth compensation: Do CEOs increase their pay by influencing dividend policy? *Journal of Corporate Finance*, *25*, 435–454. https://doi.org/10.1016/j.jcorpfin. 2014.01.005

Mitchell, C. (2019). *The lock-in effect and the corporate payout puzzle*. Institute of Social and Economic Research. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3499339

Mix Telematics Limited. (2008). *Annual report for the year ended 31 March 2008.*

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.

Mollah, S. (2011). Do emerging market companies follow different dividend policies? Empirical investigation on the pre- and post-reform dividend policy and behaviour of Dhaka Stock Exchange listed companies. *Studies in Economics and Finance, 28*(2), 118–135.

Montgomery, L. A. (2015). *The relationship between the dividend payout ratio and the subsequent earnings growth* (Master's thesis, University of Cape Town, Cape Town, South Africa). http://hdl.handle.net/11427/15711

Morphet, A. (2007). The law relating to dividends. *Tax Ensight*. https://www.ensafrica.com.

Moser, W. J. (2007). The effect of shareholder taxes on corporate payout choice. *Journal of Financial and Quantitative Analysis, 42*(4), 991–1019. https://doi.org/10.1017/S0022109000003471

Mthanti, T. (2017, 17 December 2019). Political turmoil in 2016 can be traced back to the 2008 financial crisis*, Mail & Guardian*. https://mg.co.za/article/2017-01-02-political-turmoil-in-2016-can-be-traced-back-to-the-2008-financial-crisis

MTN Group Limited. (2019). *Integrated report for the year ended 31 December 2019*.

Munzhelele, F. (2019). *Distribution policy and creation of shareholders' wealth: a study of firms listed on the Johannesburg Stock Exchange* (Doctoral dissertation, University of Pretoria, Pretoria, South Africa).

Nampak Limited. (2019). *Annual financial statements for the year ended 30 September 2019.*

National Treasury. (2005). Revenue Laws Amendment Bill 2005. South Africa: Government Printers.

National Treasury. (2008a). Dividends versus return of capital: Revising the base for taxable distributions. Discussion document. South Africa: Government Printers.

National Treasury. (2008b). Budget speech 2008. South Africa: Government Printers.

National Treasury. (2010). Explanatory memorandum on the Taxation Laws Reform Bill 2010. South Africa: Government Printers.

National Treasury. (2012). Budget Speech 2012. South Africa: Government Printers.

National Treasury. (2015). Budget Speech 2015. South Africa: Government Printers.

National Treasury. (2017). Budget Speech 2017. South Africa: Government Printers.

National Treasury. (2018). Explanatory memorandum on the Taxation Laws Reform Bill 2018. South Africa: Government Printers.

National Treasury. (2021). Budget Speech 2021. South Africa: Government Printers.

Nel, R. (2018). Investor tax-driven preferences for dividends and share repurchases of listed companies. *South African Journal of Accounting Research, 32*(1), 71–87. https://doi.org/10.1080/ 10291954.2017.1414349

Nel, R., & Wesson, N. (2019). The timing of dividend declarations based on a forthcoming change in dividend tax regime. *South African Journal of Accounting Research, 33*(1), 1–17. https://doi.org/10.1080/10291954.2019.1596559

Nel, R., & Wesson, N. (2021). The trend and composition of total payout over a period of tax reform: Evidence from JSE-listed companies. *Acta Commercii, 21*(1), 1–11. https://doi.org/10.4102/ac.v21i1.882

Nonhlanhla, N., & Nombulelo, G. (2011). Non-bank institutional investment behaviour in the South African market. In *International statistical institution.* Proceedings of the 58th World Statistical Congress. Dublin, Ireland. http://2011.isiproceedings.org/papers/650286.pdf

Norton Rose Fulbright. (2017). *Ongoing beneficial interest shareholder and regulated company obligations*. https://www.nortonrosefulbright.com

Nyere, L., & Wesson, N. (2019). Factors influencing dividend payout decisions: Evidence from South Africa. *South African Journal of Business Management, 50*(1), 1–16. https://doi.org/10.4102/sajbm.v50i1.1302

Olivier, P., Van der Merwe, A., & Du Rand, I. (2004). Die openbaarmaking van skripdividendskemas in Suid-Afrika. *Meditari Accountancy Research, 12*(2), 125–139. https://doi.org/10.1108/10222529200400019

Oosthuizen, G. (2009). *Analysing cash retained by companies declaring scrip dividend on the Johannesburg Stock Exchange* (Master's thesis, Stellenbosch University, Bellville, South Africa).

Osborne, J. (2010). Improving your data transformations: Applying the Box-Cox transformation. *Practical Assessment, Research, and Evaluation, 15*(12), 1–9. https://doi.org/10.7275/qbpc-gk17

Oswald, D., & Young, S. (2008). Tax-efficient irregular payout methods: The case of B share schemes and capital repayments via a court-approved scheme of arrangement. *Accounting and Business Research, 38*(1), 49–70. http://dx.doi.org/10.1080/00014788.2008.9663319

Pattenden, K., & Twite, G. (2008). Taxes and dividend policy under alternative tax regimes. *Journal of Corporate Finance, 14*(1), 1–16. https://doi.org/10.1016/j.jcorpfin.2007.09.002

Peyer, U., & Vermaelen, T. (2016). Political affiliation and dividend tax avoidance: Evidence from the 2013 fiscal cliff. *Journal of Empirical Finance, 35*, 136–149. https://doi.org/10.1016/j.jempfin.2015.10.009

Poterba, J. (2004). Taxation and corporate payout policy. *American Economic Review*, *94* (2), 171–175. doi: 10.1257/0002828041301416

Price Waterhouse Meyernel. (1994). *Secondary tax on companies (STC) – Capitalisation issues.* SAICA Integritax. https://www.saica.co.za/integritax/1994/88_Secondary_Tax_on_Companies_STC_Capitalisation_issues.htm

Profile Media. (2010). *Profile's stock exchange handbook, Oct. 2009 – Jan. 2010*. Profile Media.

Profile Media. (2015). *Profile's stock exchange handbook, Issue 5*. Profile Media.

PricewaterhouseCoopers. (2019). *South Africa – Corporate – Taxes on corporate income*. https://taxsummaries.pwc.com/south-africa/Corporate

Quinlan, C., Babin, B., Carr, J., & Griffin, M. (2019). *Business research methods* (2nd ed.). Cengage.

Ramirez, R., Mukherjee, M., Vezzoli, S., & Kramer, A. M. (2015). Scenarios as a scholarly methodology to produce "interesting research". *Futures*, *71*, 70-87. https://doi.org/10.1016/j.futures.2015.06.006

Refinitiv. (2020). *Ownership & profiles factsheet*. https://www.refinitiv.com/content/dam/marketing/en_us/documents/fact-sheets/ownership-profiles-fact-sheet.pdf

Remgro Limited. (2012). SENS announcement 25 June 2012.

Republic of South Africa. (2007). *Security Transfer Tax Act of 2007*. Pretoria, South Africa: Government Printer.

Republic of South Africa. (2009). *Companies Act No 71 of 2008*. Pretoria, South Africa: Government Printer.

Republic of South Africa. (2020). *Income Tax Act No 58 of 1962*. Pretoria, South Africa: Government Printer.

Roeleveld, J. (2015). The road to dividend withholding tax in South African income tax law. In J. Hattingh, J. Roeleveld, & C. West (Eds.), *Income tax in South Africa: The first 100 years (1914–2014)* (pp. 111–131). Juta.

SA Shares. (2019). *Defining mid cap*. https://sashares.co.za/mid-cap-jse-index

SARS. (n.d.). 'Tax pocket guide' for respective years of assessment obtained from http://www.treasury.gov.za

SARS. (2008). Legal & Policy Income Tax. Taxation Laws Amendment Act No. 3 of 2008. www.sars.gov.za

SARS. (2009). Tax pocket guide 2008/2009. http://www.treasury.gov.za

SARS. (2010). Comprehensive guide to secondary tax on companies (Issue 3). www.sars.gov.za

SARS. (2014). Tax guide for share owners (Issue 4). www.sars.gov.za

SARS. (2019). Comprehensive guide to dividends tax (Issue 3). www.sars.gov.za

SARS. (2020a). Comprehensive guide to capital gains tax (Issue 9). www.sars.gov.za

SARS. (2020b). Average exchange rates for a year of assessment. https://www.sars.gov.za/Legal/Legal-Publications/Pages/Average-Exchange-Rates.aspx

Saunders, M., Lewis, P., & Thornhill, A. (2019). Research methods for business students (8th ed.). Pearson.

Shadish, W. R., Cook, T. D., & Campbell, D. T. (2002). *Experimental and quasi-experimental designs for generalized causal inference.* Houghton, Mifflin and Company

Short, H., Zhang, H., & Keasey, K. (2002). The link between dividend policy and institutional ownership. *Journal of Corporate Finance*, *8*(2), 105–122.

Sibanda, B. (2016). *Drivers that shape corporate payout policy in South Africa* (Master's thesis, University of Pretoria, Pretoria, South Africa). http://hdl.handle.net/2263/59772

Slemrod, J. (1992). *Do taxes matter? Lessons from the 1980s*. National Bureau of Economic Research (Working Paper No. w4008). http://www.nber.org/papers/w4008

Smith, M. (2020). *Research methods in accounting* (5th ed.). SAGE Publications.

Snowden-Service, C. L. (2018). *Gripping GAAP: Your guide to international financial reporting standards* (2018 ed.). LexisNexis Butterworths.

Statistics South Africa. (2019). *CPI history.* http://www.statssa.gov.za/publications

Steenkamp, G., & Wesson, N. (2020). Post-recession share repurchase behaviour by JSE-listed companies: Transparent or not? *Journal of Accounting in Emerging Economies, 10*(3), 465–486. https://doi.org/10.1108/JAEE-02-2020-0040

STRATE. (2012, July). Dividends Tax Q&A. *StrateTalk*.

STRATE. (2020). *About Strate*. https://www.strate.co.za/about/our-company

SUN International Group Limited. (2019). *Audited consolidated financial statements for the year ended 31 December 2019*.

Sundvik, D. (2017). Tax-driven fiscal year extension and earnings management. *Journal of Applied Accounting Research, 18*(3), 356–374. https://doi.org/10.1108/JAAR-06-2015-0051

Telkom Limited. (2009). *Annual report for the year ended 31 March 2009.*

Thakur, B. P. S., & Kannadhasan, M. (2018). Determinants of dividend payout of Indian manufacturing companies. *Journal of Indian Business Research*, *10*(4), 364–376. https://doi.org/10.1108/JIBR-02-2018-0079

Thomas, L. (2017). *Ownership of JSE-listed companies*. Research report for National Treasury. http://www.treasury.gov.za

Thomson Reuters. (2016a). *Ownership FAQS – Filing sources*. https://emea1.apps.cp.thomsonreuters.com/Apps/HelpViews/0.2.9/Default.htm#ownership_faq5.htm

Thomson Reuters. (2016b). *Ownership summary app.* https://video.training.refinitiv.com/elearning_video/Documents/Eikon_QRC/Eikon%20Quick%20Reference%20Card%20-%20Ownership%20Summary.pdf

Tiger Brands Limited. (2019). *Annual financial statements for the year ended 30 September 2019*.

Timbukone. (n.d.). *Shareholder analysis*. https://timbukone.com/UK/TimBukOne-Shareholding.html

Toerien, F., & Marcus, M. (2014). The effect of South African dividend and capital gains taxes on share prices and investor expected returns. *Journal of Applied Business Research, 30*(3), 895–908. https://doi.org/10.19030/jabr.v30i3.8574

Trencor Limited. (2019). *Integrated annual report for the year ended 31 December 2019*.

Trinchera, O. (2012). *Large blockholders, shareholder protection and taxes: Their impact on firm performance and payout policy* (Doctoral dissertation, Technische Universität München, Germany. http://mediatum.ub.tum.de/?id=1097228

Truong, T., & Heaney, R. (2007). Largest shareholder and dividend policy around the world. *The Quarterly Review of Economics and Finance*, *47*(5), 667–687. https://doi.org/10.1016/j.qref.2007.09.002

VACO Holdings. (n.d.). *Investor intelligence*. http://www.vaco.co.za/investor-intelligence.html.

Van der Linde, K. (2008). *Aspects of the regulation of share capital and distributions to shareholders* (Doctoral dissertation, University of South Africa, Pretoria, South Africa). http://hdl.handle.net/10500/2543

Van der Merwe, H. (2016*). The impact of rights issues announcements on share price performance in South Africa* (Master's thesis, University of Cape Town, Cape Town, South Africa). http://hdl.handle.net/11427/21755

Van Heerden, Y. (2013). *Personal income tax reform to secure the South African revenue base using a micro-simulation tax model* (Doctoral dissertation, University of Pretoria, Pretoria, South Africa). http://hdl.handle.net/2263/40264

Vanteeva, N., & Hickson, C. (2018). The idiosyncratic pattern of Russian corporate dividend policy during its formative era. *Annals of Public and Cooperative Economics,* 1–20. https://doi.org/10.1111/apce.12215

Venter, S. (2014). *The impact of the introduction of dividends tax in South Africa on foreign and local investors* (Master's thesis, University of Pretoria, Pretoria, South Africa). http://hdl.handle.net/2263/41414

Waldmann, E. (2018). Quantile regression: A short story on how and why. *Statistical Modelling*, *18*(3–4), 203–218. https://doi.org/10.1177/1471082X18759142

Wang, C. F., & Guo, Y. (2011). Do dividend tax cuts lead companies to increase dividends: Evidence from China. *China Journal of Accounting Research, 4*(4), 197–209. https://doi.org/10.1016/ j.cjar.2010.06.001

Wei, G., & Xiao, J. Z. (2009). Equity ownership segregation, shareholder preferences, and dividend policy in China. *The British Accounting Review*, *41*(3), 169–183. https://doi.org/10.1016/j.bar. 2009.07.001

Wesson, N. (2015). *An empirical model of choice between share repurchases and dividends for companies in selected JSE-listed sectors* (Doctoral dissertation, Stellenbosch University, Bellville, South Africa). http://hdl.handle.net/10019.1/97082

Wesson, N., Bruwer, B. W., & Hamman, W. D. (2015). Share repurchase and dividend payout behaviour: The South African experience. *South African Journal of Business Management, 46*(3), 43–54. https://hdl.handle.net/10520/EJC177659

Wesson, N., & Hamman, W. D. (2012). The repurchase by a holding company of treasury shares held by subsidiaries: A South African perspective. *South African Journal of Business Management, 43*(4), 33–44. https://hdl.handle.net/10520/EJC128375

Wesson, N., Smit, E., Kidd, M., & Hamman, W. D. (2018). Determinants of the choice between share repurchases and dividend payments. *Research in International Business and Finance, 45*, 180–196. https://doi.org/10.1016/j.ribaf.2017.07.150

Williams, L. J., & Abdi, H. (2010). Fisher's least significant difference (LSD) test. In N. Salkind (Ed.), *Encyclopedia of research design* (pp. 840–853). SAGE Publications.

Wooldridge, J. M. (2013). *Introductory econometrics: A modern approach* (5th ed.). Cengage Learning.

World Bank. (2020). *World Development Indicators – GDP growth (annual %).* https://databank.worldbank.org/source/world-development-indicators.

Yang, B., Chou, H. I., & Zhao, J. (2020). Innovation or dividend payout: Evidence from China. *International Review of Economics & Finance, 68*, 180–203. https://doi.org/10.1016/j.iref.2020.03.008

Zagonel, T., Terra, P. R. S., & Pasuch, D. F. (2018). Taxation, corporate governance and dividend policy in Brazil. RAUSP Management Journal, 53(3), 304–324. https://doi.org/10.1108/RAUSP-04-2018-006

APPENDICES

Appendix A: Population, company size, dividend history, and shareholding category

Population				Dividend history[2] (Chapter 6)			Shareholding category[3] (Chapter 8)	
No	Ticker	Company name	Size[1]	Final	Interim	Special	Registered	Beneficial
1	ACT	AFROCENTRIC INVESTMENT CORP LTD	Med	Included [B]			Included	Included
2	ADH	ADVTECH LTD	Med	Included [A]	Included [A]			Included
3	ADI	ADAPTIT HOLDINGS LTD	Small	Included [A]				Included
4	ADR	ADCORP HOLDINGS LTD	Med	Included [A]	Included [A]		Included	Included
5	AEG	AVENG LTD	Large				Included	Included
6	AEL	ALTRON	Med	Included [A]				Included
7	AER	AMALGAMATED ELECTRONIC CORP LTD	Small	Included [A]				
8	AFT	AFRIMAT LTD	Med	Included [A]	Included [A]			Included
9	AIP	ADCOCK INGRAM HOLDINGS LTD	Med		Included [B]			Included
10	AME	AFRICAN MEDIA ENTERTAINMENT LTD	Small			Included [2]	Included	Included
11	AOO/AON	AFRICAN AND OVERSEAS ENTERPRISES LTD	Small	Included [B]			Included	Included
12	APK	ASTRAPAK LTD	Small				Included	Included
13	APN	ASPEN PHARMACARE HOLDINGS LTD	Large	Included [B]				Included
14	ARH	ARB HOLDINGS LTD	Med			Included [3]	Included	Included
15	ARL	ASTRAL FOODS LTD	Med	Included [A]			Included	Included
16	ART	ARGENT INDUSTRIAL LTD	Small	Included [B]	Included [B]		Included	Included

Population				Dividend history[2] (Chapter 6)			Shareholding category[3] (Chapter 8)	
No	Ticker	Company name	Size[1]	Final	Interim	Special	Registered	Beneficial
17	AVI	AVI LTD	Large	Included [A]	Included [A]	Included [1]	Included	Included
18	AVV	ALVIVA HOLDINGS / PINNACLE HOLDINGS	Med	Included [B]			Included	Included
19	BAW	BARLOWORLD LTD	Large	Included [A]	Included [A]			Included
20	BCF	BOWLER METCALF LTD	Small	Included [A]	Included [A]			Included
21	BEL	BELL EQUIPMENT LTD	Med				Included	Included
22	BLU	BLUE LABEL TELECOMS LTD	Med	Included [B]			Included	Included
23	BSR	BASIL READ HOLDINGS LTD	Med			Included [1]		Included
24	BVT	THE BIDVEST GROUP LTD	Large	Included [A]	Included [A]	Included [1]	Included	Included
25	CAT	CAXTON CTP PUBLISHERS AND PRINTERS	Med	Included [A]				Included
26	CGN	COGNITION HOLDINGS LTD	Small	Included [A]		Included [1]		Included
27	CGR	CALGRO M3 HOLDINGS LTD	Small				Included	Included
28	CKS	CROOKES BROTHERS LTD	Small	Included [A]	Included [A]	Included [1]	Included	Included
29	CLH	CITY LODGE HOTELS LTD	Med	Included [A]	Included [A]			Included
30	CLS	CLICKS GROUP LTD	Large	Included [A]	Included [A]		Included	Included
31	CMH	COMBINED MOTOR HOLDINGS LTD	Med	Included [B]	Included [B]			Included
32	COM	COMAIR LTD	Small				Included	Included
33	CRG	CARGO CARRIERS LTD	Small	Included [A]	Included [A]			Included
34	CSB	CASHBUILD LTD	Med	Included [A]	Included [A]		Included	Included
35	CSG	CSG HOLDINGS LTD / TOP FIX	Small					Included
36	CUL	CULLINAN HOLDINGS LTD	Small					Included
37	DAW	DISTRIBUTION AND WAREHOUSING NETWORK	Med				Included	Included
38	DCT	DATACENTRIX HOLDINGS LTD	Small	Included [A]	Included [A]			Included

Population				Dividend history[2] (Chapter 6)			Shareholding category[3] (Chapter 8)	
No	Ticker	Company name	Size[1]	Final	Interim	Special	Registered	Beneficial
39	DST	DISTELL GROUP LTD	Large	Included [A]	Included [A]			
40	DTC	DATATEC LTD	Med			Included [1]		Included
41	ELI	ELLIES HOLDINGS LTD	Med				Included	Included
42	ELR	ELB GROUP LTD	Med	Included [A]	Included [A]			Included
43	EMH/EMN	E MEDIA HOLDINGS / SEARDEL INV. CORP	Small				Included	Included
44	ENX	ENX GROUP LTD	Small				Included	Included
45	EOH	EOH HOLDINGS LTD	Med	Included [A]			Included	Included
46	ESR	ESORFRANKI LTD	Small				Included	
47	EXG	EXTRACT GROUP LTD	Med	Included [B]			Included	Included
48	FBR	FAMOUS BRANDS LTD	Med	Included [A]	Included [A]		Included	Included
49	GND	GRINDROD LTD	Med	Included [A]	Included [A]		Included	Included
50	GRF	GROUP FIVE LTD	Med	Included [A]	Included [A]		Included	Included
51	HDC	HUDACO INDUSTRIES LTD	Med		Included [B]	Included [1]	Included	Included
52	HUG	HUGE GROUP LTD	Small				Included	Included
53	HWN	HOWDEN AFRICA HOLDINGS LTD	Med		Included [B]	Included [2]	Included	Included
54	ILV	ILLOVO SUGAR LTD	Large	Included [A]	Included [A]		Included	
55	IPL	IMPERIAL HOLDINGS LTD	Large	Included [A]	Included [A]		Included	Included
56	ITE	ITALTILE LTD	Med	Included [A]	Included [A]	Included [2]	Included	Included
57	IVT	INVICTA HOLDINGS LTD	Med	Included [A]	Included [A]		Included	Included
58	IWE	INTERWASTE HOLDINGS LTD	Small				Included	Included
59	JSC	JASCO ELECTRONICS HOLDINGS LTD	Small				Included	Included
60	KAP	KAP INDUSTRIAL HOLDINGS LTD	Med	Included [B]				Included

Population				Dividend history[2] (Chapter 6)			Shareholding category[3] (Chapter 8)	
No	Ticker	Company name	Size[1]	Final	Interim	Special	Registered	Beneficial
61	KDV	KAYDAV GROUP LTD	Small				Included	Included
62	LEW	LEWIS GROUP LTD	Med	Included [A]	Included [A]			Included
63	MAS	MASONITE (AFRICA) LTD	Small			Included [1]		Included
64	MFL	METROFILE HOLDINGS LTD	Med	Included [B]	Included [B]		Included	Included
65	MIX	MIX TELEMATICS LTD	Med	Included [B]			Included	Included
66	MRP	MR PRICE GROUP LTD	Large	Included [A]	Included [A]			Included
67	MSM	MASSMART HOLDINGS LTD	Large	Included [A]	Included [A]		Included	Included
68	MST	MUSTEK LTD	Small	Included [A]				Included
69	MTA	METAIR INVESTMENTS LTD	Med			Included [1]	Included	Included
70	MTN	MTN GROUP LTD	Large	Included [A]	Included [B]			Included
71	MUR	MURRAY AND ROBERTS HOLDINGS LTD	Large				Included	Included
72	MZR	MAZOR GROUP LTD	Small	Included [B]			Included	Included
73	NCS	NICTUS LTD	Small				Included	Included
74	NPK	NAMPAK LTD	Large	Included [A]	Included [A]			Included
75	NPN	NASPERS LTD	Large	Included [A]				Included
76	NTC	NETCARE LTD	Large	Included [A]	Included [A]		Included	Included
77	NWL	NU-WORLD HOLDINGS LTD	Small	Included [A]			Included	Included
78	OCE	OCEANA GROUP LTD	Med	Included [A]	Included [A]		Included	Included
79	OLG	ONELOGIX GROUP LTD	Small	Included [B]	Included [B]		Included	Included
80	PFG	PIONEER FOOD GROUP LTD	Large	Included [B]	Included [B]		Included	Included
81	PHM	PHUMELELA GAMING AND LEISURE LTD	Small	Included [A]	Included [A]		Included	Included
82	PIK	PICK N PAY STORES LTD	Large	Included [A]	Included [A]			Included

Population				Dividend history[2] (Chapter 6)			Shareholding category[3] (Chapter 8)	
No	Ticker	Company name	Size[1]	Final	Interim	Special	Registered	Beneficial
83	PMV	PRIMESERV GROUP LTD	Small				Included	Included
84	PPC	PPC LTD (PRETORIA PORTLAND CEMENT)	Large	Included [A]	Included [A]		Included	Included
85	PWK	PICK N PAY HOLDINGS LTD	Large	Included [A]	Included [A]			
86	RBX	RAUBEX GROUP LTD	Med	Included [A]	Included [A]			Included
87	RCL	RAINBOW CHICKEN LTD / RCL FOODS LTD	Med				Included	Included
88	REM	REMGRO LTD	Large	Included [A]				Included
89	RLO	REUNERT LTD	Large	Included [A]	Included [A]			Included
90	RTO/RTN	REX TRUEFORM CLOTHING COMPANY LTD	Small	Included [B]			Included	Included
91	SEB	SEBATA HOLDINGS / MICROMEGA	Small					Included
92	SEP	SEPHAKU HOLDINGS LTD	Small					Included
93	SHP	SHOPRITE HOLDINGS LTD	Large	Included [A]	Included [A]		Included	Included
94	SNV	SANTOVA LTD / SPECTRUM	Small				Included	Included
95	SOH	SOUTH OCEAN HOLDINGS LTD	Small				Included	Included
96	SOV	SOVEREIGN FOOD INVESTMENTS LTD	Small					Included
97	SPG	SUPER GROUP LTD	Med				Included	Included
98	SPP	THE SPAR GROUP LTD	Large	Included [A]	Included [A]		Included	Included
99	SSK	STEFANUTTI STOCKS HOLDINGS LTD	Med				Included	Included
100	SUI	SUN INTERNATIONAL LTD	Large	Included [B]	Included [B]		Included	Included
101	SUR	SPUR CORPORATION LTD	Med	Included [A]	Included [A]		Included	Included
102	TAS	TASTE HOLDINGS LTD	Small	Included [B]			Included	Included
103	TBS	TIGER BRANDS LIMITED	Large	Included [A]	Included [A]			Included
104	TFG	FOCHINI GROUP LTD / FOSCHINI LTD	Large	Included [A]	Included [A]			Included

Population				Dividend history[2] (Chapter 6)			Shareholding category[3] (Chapter 8)	
No	Ticker	Company name	Size[1]	Final	Interim	Special	Registered	Beneficial
105	TKG	TELKOM SA SOC LTD	Med			Included [3]	Included	Included
106	TON	TONGAAT HULETT LTD	Large	Included [A]	Included [A]		Included	Included
107	TPC	TRANSPACO LTD	Small	Included [A]	Included [A]			Included
108	TRE	TRENCOR LTD	Med	Included [A]	Included [A]	Included [1]	Included	Included
109	TRU	TRUWORTHS INTERNATIONAL LTD	Large	Included [A]	Included [A]		Included	Included
110	TSG	TSOGO SUN GAMING LTD / GOLD REEF	Large	Included [B]			Included	Included
111	VLE	VALUE GROUP LTD	Med	Included [A]	Included [B]			Included
112	VMK	VERIMARK HOLDINGS LTD	Small				Included	
113	VOD	VODACOM GROUP LTD	Large	Included [B]	Included [B]		Included	Included
114	WBO	WILSON BAYLY HOLMES-OVCON LTD	Large	Included [A]	Included [A]		Included	Included
115	WHL	WOOLWORTHS HOLDINGS LTD	Large	Included [A]	Included [A]			Included
116	WNH	WINHOLD LTD	Small				Included	Included
Total companies included in the present study				**77**	**57**	**15**	**74**	**110**
Total companies excluded from the present study				**39**	**59**	**101**	**42**	**6**
Total number of companies in the population considered				**116**	**116**	**116**	**116**	**116**

[1] Company size based on market capitalisation during 2012. Large companies represented by companies with a market capitalisation exceeding R10 billion; medium size companies represented by companies with market capitalisation exceeding R1 billion but not exceeding R10 billion; and small companies represented by companies with market capitalisation of R1 billion or less (SA Shares, 2019).

[2] Companies were included based on dividend history from 2009 to 2015 (indicated by [A]) and dividend history from 2011 to 2013 (indicated by [B]). Companies not indicated as "Included" were excluded from the present study due to the required dividend history not being available (section 4.6.3). In respect of special dividends, the number of special dividends for each company included is indicated in block brackets.

[3] Companies not indicated as "Included" were excluded from the present study due to the required shareholding data not being available (section 4.8.3).

Appendix B: Extracts from the Income Tax Act

Extracts from section 1 of the Income Tax Act (Republic of South Africa, 2020):

***"contributed tax capital"**, in relation to a class of shares in a company, means—*

(a) in relation to a class of shares issued by a company, in the case of a foreign company that becomes a resident on or after 1 January 2011, an amount equal to the sum of—

(i) the market value of all the shares in that company of that class immediately before the date on which that company becomes a resident;

(ii) the consideration received by or accrued to that company for the issue of shares of that class on or after the date on which that company becomes a resident; and

(iii) if the shares of that class include or consist of shares that were converted from another class of shares of that company to that class of shares—

(aa) any consideration received by or accrued to that company in respect of that conversion; and

(bb) the amount contemplated in subparagraph (cc) that was determined in respect of shares of the other class of shares that were so converted,

reduced by so much of that amount as—

(aa) the company has transferred on or after the date on which the company becomes a resident for the benefit of any person holding a share in that company of that class in respect of that share;

(bb) has by the date of the transfer been determined by the directors of the company or by some other person or body of persons with comparable authority to be an amount so transferred; and

(cc) in the case of a convertible class of shares some of the shares of which have been converted to another class of shares, so much of the amount contemplated in this paragraph in respect of that convertible class of shares immediately prior to that conversion as bears to that amount the same ratio as the number of shares so converted bears to the total number of that convertible class of shares prior to that conversion: or

(b) [Excluded from the scope of the present study as relating to non-resident companies]

Provided that the amount transferred by a company as contemplated in paragraph (a) or (b) for the benefit of a person holding shares of any class of shares of that company must not exceed an amount that bears to the total of the amount of contributed tax capital attributable to that class of shares immediately before the transfer the same ratio as the number of shares of that class held by that person bears to the total number of shares of that class.

"dividend" *means any amount transferred or applied by a company that is a resident for the benefit or on behalf of any person in respect of any share in that company, whether that amount is transferred or applied—*

(a) by way of a distribution made by; or

(b) as consideration for the acquisition of any share in, that company, but does not include any amount so transferred or applied to the extent that the amount so transferred or applied—

(i) results in a reduction of contributed tax capital of the company;

(ii) constitutes shares in the company; or

(iii) constitutes an acquisition by the company of its own securities by way of a general repurchase of securities as contemplated in subparagraph (b) of paragraph 5.67(B) of section 5 of the JSE Limited Listings Requirements, where that acquisition complies with any applicable requirements prescribed by paragraphs 5.68 and 5.72 to 5.81 of section 5 of the JSE Limited Listings Requirements.

"foreign dividend" *means any amount that is paid or payable by a foreign company in respect of a share in that foreign company where that amount is treated as a dividend or similar payment by that foreign company for the purposes of the laws relating to—*

(a) tax on income on companies of the country in which that foreign company has its place of effective management; or

(b) companies of the country in which that foreign company is incorporated, formed or established, where the country in which that foreign company has its place of effective management does not have any applicable laws relating to tax on income,

but does not include any amount so paid or payable that—

(i) constitutes a redemption of a participatory interest in an arrangement or scheme contemplated in paragraph (e) (ii) of the definition of "company"; or

(ii) [Deleted on 1 March 2012]

(iii) constitutes a share in that foreign company.

Extract from section 64D of the Income Tax Act (Republic of South Africa, 2020):

"beneficial owner" *means the person entitled to the benefit of the dividend attaching to a share.*

Appendix C: Extracts from the Companies Act

Extracts from section 1 of the Companies Act (Republic of South Africa, 2009):

***"beneficial interest"**, when used in relation to a company's securities, means the right or entitlement of a person, through ownership, agreement, relationship or otherwise, alone or together with another person to—*

(a) receive or participate in any distribution in respect of the company's securities;

(b) exercise or cause to be exercised, in the ordinary course, any or all of the rights attaching to the company's securities; or

(c) dispose or direct the disposition of the company's securities, or any part of a distribution in respect of the securities, but does not include any interest held by a person in a unit trust or collective investment scheme in terms of the Collective Investment Schemes Act, 2002 (Act No. 45 of 2002).

***"company"** means a juristic person incorporated in terms of this Act, or a juristic person that, immediately before the effective date—*

(a) was registered in terms of the—

(i) Companies Act, 1973 (Act No. 61 of 1973), other than as an external company as defined in that Act; or

(ii) Close Corporations Act, 1984 (Act No. 69 of 1984), if it has subsequently been converted in terms of Schedule 2;

(b) was in existence and recognised as an 'existing company' in terms of the Companies Act, 1973 (Act No. 61 of 1973); or

(c) was deregistered in terms of the Companies Act, 1973 (Act No. 61 of 1973), and has subsequently been re-registered in terms of this Act.

***"distribution"** means a direct or indirect—*

(a) transfer by a company of money or other property of the company, other than its own shares, to or for the benefit of one more holders of any of the shares of that company or of another company within the same group of companies, whether—

(i) in the form of a dividend;

(ii) as a payment in lieu of a capitalisation share, as contemplated in section 47;

(iii) is consideration for the acquisition—

(aa) by the company of any of its shares, as contemplated in section 48; or

(bb) by any company within the same group of companies, of any shares of a company within that group of companies; or

(iv) otherwise in respect of any of the shares of that company or of another company within the same group of companies, subject to section 164(19);

(b) incurrence of a debt or other obligation by a company for the benefit of one or more holders of any of the shares of that company or of another company within the same group of companies; or

(c) forgiveness or waiver by a company of a debt or other obligation owed to the company by one more holders of any of the shares of that company or of another company within the same group of companies, but does not include any such action taken upon the final liquidation of the company;

but does not include any such action taken upon the final liquidation of the company.

***"shareholder"**, subject to section 57(1), means the holder of a share issued by a company and who is entered as such in the certificated or uncertificated securities register, as the case may be.*

Appendix D: Special dividends as a result of unbundling transactions

No	Ticker	Name	Year	Special dividends	Comments
1	BAW	BARLOWORLD	2007	R1 017 000 000	Special dividend linked with the distribution of PPC shares to shareholders (Annual financial statements, 2007, p. 23)
2	BVT	THE BIDVEST GROUP	2016	R93 302 744 000	Unbundling via a distribution in specie (Annual integrated report, 2016, p. 92)
3	ENX	EXTRACT GROUP	2017	R1 021 624 000	Dividend in specie was paid relating to the enX transaction (Integrated report, 2017, p. 18)
4	IPL	IMPERIAL HOLDINGS	2019	R17 036 000	Distribution in specie on unbundling of Motus (Annual financial statements, 2019, p. 57)
5	IVT	INVICTA HOLDINGS	2015	R1 500 000 000	Special dividend due to restructuring (Annual financial statements, 2015, p. 109)
6	MAS	MASONITE (AFRICA)	2016	R269 189 980	Masonite unbundling transaction resulting in a special dividend (SENS 10 Aug 2016 & 19 Sep 2016)
7	NPN	NASPERS	2018	R932 000 000	Novus Holdings Limited was distributed to Naspers shareholders (Annual financial statements, 2019, p. 165)
8	NPN	NASPERS	2019	R53 249 000 000	Dividend as a result of MultiChoice Group distributed to shareholders (Annual financial statements, 2019, p. 165)
9	REM	REMGRO	2011	R117 000 000	Unbundling of Trans Hex during 2011 (Integrated annual report, 2012, p. 189)
10	REM	REMGRO	2012	R1 622 000 000	In specie distribution of shares held in Impala Platinum Holdings Limited (SENS 25 June 2012)
11	SEB	SEBATA LTD	2018	R344 745 000	Disposal of the NOSA Group with net proceeds utilised to pay a special dividend (Annual financial statements, 2018, p. 11)
12	SEP	SEPHAKU HOLDINGS	2011	R13 564 695	Distribution shares held in Incubex to shareholders by way of a dividend in specie (Annual financial statements, 2011, p. 7)
13	SEP	SEPHAKU HOLDINGS	2012	R101 092 918	Remaining Sephaku Fluoride shares in specie distributed to shareholders (SENS 26 Sep 2012)
14	TBS	TIGER BRANDS	2008	R1 212 800 000	Dividend due to unbundling (Annual report, 2009, p. 128)
15	TBS	TIGER BRANDS	2019	R3 563 000	Special dividend due to unbundling deemed to be a return of capital (SENS 22 Nov 2019)

No	Ticker	Name	Year	Special dividends	Comments
16	TKG	TELKOM SA SOC	2009	R11 249 000 000	Special dividend as a result of unbundling of Vodacom shares (Annual financial statements, 2011, p. 282)
17	TKG	TELKOM SA SOC	2010	R911 000 000	Special dividend relating to 2009 unbundling of Vodacom shares (Annual financial statements, 2011, p. 282)
18	TRE	TRENCOR LTD	2019	R3 595 000 000	Shares held in Textainer unbundled - distributed to shareholders (Integrated annual report, 2019, p. 16)
Special dividends excluded 2006 – 2018				R113 613 760 593	
Special dividends excluded 2006 – 2019				R170 478 359 593	

Appendix E: Detailed regression results in respect of dividends

Based on registered shareholding:

Description	Ordinary dividends						Total dividends					
	*Coef**	*SE**	*Coef*	*SE*	*t*	*P-value*	*Coef**	*SE**	*Coef*	*SE*	*t*	*P-value*
Intercept			-0.618	0.231	-2.670	0.008			-0.709	0.263	-2.692	0.007
Δ ln ROA_{it}	0.232	0.044	0.335	0.081	4.159	0.001	0.230	0.044	0.379	0.092	4.107	0.001
Δ ln $\theta_{Individuals,it}$	0.103	0.050	0.319	0.167	1.914	0.056	0.112	0.050	0.393	0.184	2.135	0.033
Δ ln $\theta_{Corporates,it}$	0.142	0.051	0.285	0.098	2.910	0.004	0.146	0.050	0.335	0.105	3.204	0.001
Δ ln $\theta_{Institutions,it}$	0.102	0.055	0.436	0.254	1.719	0.086	0.120	0.054	0.581	0.282	2.061	0.040
ln Div_{it-1}	-0.320	0.049	-0.024	0.004	-5.781	0.001	-0.335	0.048	-0.029	0.005	-6.079	0.001
ln ROA_{it-1}	0.300	0.047	0.278	0.054	5.131	0.001	0.316	0.047	0.333	0.063	5.327	0.001
ln $\theta_{Individuals,it-1}$	0.041	0.056	0.026	0.034	0.769	0.442	0.027	0.056	0.019	0.038	0.518	0.605
ln $\theta_{Corporates,it-1}$	0.008	0.056	0.004	0.024	0.160	0.873	0.003	0.056	0.002	0.026	0.063	0.950
ln $\theta_{Institutions,it-1}$	0.100	0.058	0.074	0.032	2.293	0.022	0.099	0.057	0.084	0.037	2.301	0.022
High concentration	-0.015	0.046	-0.018	0.056	-0.318	0.751	-0.014	0.046	-0.019	0.063	-0.299	0.765
Top individual	-0.013	0.056	-0.019	0.076	-0.248	0.804	-0.004	0.055	-0.006	0.084	-0.074	0.941
Top corporate	0.048	0.056	0.059	0.070	0.853	0.394	0.051	0.056	0.072	0.079	0.910	0.363

* Indicating standardised beta coefficients and standardised errors

Appendix E: Detailed regression results in respect of dividends (continued)

Based on beneficial shareholding:

Description	Ordinary dividends:						Total dividends:					
	*Coef**	*SE**	*Coef*	*SE*	*t*	*P-value*	*Coef**	*SE**	*Coef*	*SE*	*t*	*P-value*
Intercept			-0.009	0.113	-0.076	0.939			-0.030	0.126	-0.236	0.813
Δ ln ROA_{it}	0.283	0.036	0.359	0.059	6.098	0.001	0.279	0.036	0.396	0.065	6.050	0.001
Δ ln $\theta_{Individuals,it}$	0.062	0.037	0.148	0.085	1.743	0.082	0.055	0.037	0.145	0.096	1.508	0.132
Δ ln $\theta_{Corporates,it}$	0.034	0.038	0.063	0.067	0.951	0.342	0.043	0.038	0.089	0.073	1.213	0.225
Δ ln $\theta_{Institutions,it}$	0.009	0.036	0.015	0.069	0.221	0.825	0.015	0.036	0.029	0.075	0.391	0.696
ln Div_{it-1}	-0.257	0.039	-0.017	0.003	-5.504	0.001	-0.264	0.039	-0.019	0.003	-5.690	0.001
ln ROA_{it-1}	0.261	0.038	0.201	0.035	5.658	0.001	0.266	0.038	0.228	0.040	5.740	0.001
ln $\theta_{Individuals,it-1}$	-0.015	0.051	-0.005	0.018	-0.278	0.781	-0.015	0.051	-0.005	0.019	-0.281	0.779
ln $\theta_{Corporates,it-1}$	0.012	0.057	0.003	0.015	0.212	0.832	0.001	0.057	0.001	0.017	0.007	0.995
ln $\theta_{Institutions,it-1}$	-0.068	0.053	-0.025	0.021	-1.202	0.230	-0.060	0.053	-0.025	0.023	-1.083	0.279
High concentration	-0.058	0.039	-0.055	0.037	-1.484	0.138	-0.059	0.039	-0.062	0.041	-1.509	0.132
Top individual	-0.050	0.054	-0.059	0.063	-0.944	0.345	-0.038	0.054	-0.050	0.071	-0.705	0.481
Top corporate	-0.023	0.062	-0.023	0.060	-0.381	0.703	-0.014	0.062	-0.016	0.066	-0.237	0.813

* Indicating standardised beta coefficients and standardised errors

Appendix F: Inflation values and deflation factors applied

Financial year	CPI headline index numbers[1]	CPI headline average year-on-year rates[1]	Deflation factor applied
2006	54.500	4.700	1.000
2007	59.300	7.100	0.919
2008	65.000	11.500	0.838
2009	69.100	7.100	0.789
2010	71.500	4.300	0.762
2011	75.900	5.000	0.718
2012	80.200	5.600	0.680
2013	84.500	5.700	0.645
2014	89.000	6.100	0.612
2015	93.700	4.600	0.582
2016	100.000	6.400	0.545
2017	104.700	5.300	0.521
2018	109.400	4.700	0.498

[1] Inflation values obtained from Statistics South Africa (2019). CPI headline index numbers with December 2016 as basis year.

Appendix G: Ethical clearance letter

USB
University of Stellenbosch Business School

07 May 2019

Dear Rudie

Re: Ethical screening: Rudie Nel - Exempt (USB-2019-9637)

US ID No	:	16156234
Research programme	:	PhD in Business Management Administration
Title	:	The effect of investor-level tax reform on payout policies: Evidence from companies listed in selected sectors on the Johannesburg Stock Exchange
Supervisor	:	Prof Nicolene Wesson / Dr Lee-Ann Steenkamp

The Departmental Ethics Screening Committee of the University of Stellenbosch Business School (USB DESC) reviewed your application for the above-mentioned research. The research as set out in the application is confirmed as exempt from ethical clearance.

You as researcher are obliged to maintain the ethical integrity of your research. As such, you should adhere to the ethical guidelines of Stellenbosch University and remain within the scope of your ethical clearance application and the supporting evidence submitted to the USB DESC. Should any aspect of your research change from the information as presented to the USB DESC, you are under the obligation to report it immediately to your supervisor. Should there be any uncertainty in this regard, consult with the USB DESC.

Please note that this approval may still be subject to ratification by the Stellenbosch University Research Ethics Committee. For more information on this ratification, please contact Clarissa Graham at cgraham@sun.ac.za.

We wish you success with your research and trust that it will make a positive contribution to the quest for knowledge at the USB and Stellenbosch University.

Should any research subject, participating organisation or person affected by this research have any questions about the research, feel free to contact any of the following:

Researcher	:	rnel@sun.ac.za
Supervisor	:	nwesson@sun.ac.za / lee-ann.steenkamp@usb.ac.za

Yours sincerely

pp

Professor Mias de Klerk
Chair: USB Departmental Ethics Screening Committee