



# SELECTED ABSTRACTS

## Applied Research in Accounting, Finance, Insurance and Economics on Africa



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## **COVID-19 and liquidity: An empirical analysis of exchange traded funds trading in emerging markets**

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### **Abstract**

The purpose of this study is to examine the impact of COVID-19 on the liquidity of exchange traded funds trading in emerging markets. The results of this study suggest that growth in COVID-19 confirmed cases and deaths induce an increase in the bid-ask spread percentage and, thus, a reduction in the liquidity of ETFs. Further analysis reveals that COVID-19 exhibits a significant impact on the tightness component of ETF liquidity but an insignificant impact on the depth component of ETF liquidity.

**Keywords:** Coronavirus; COVID-19; exchange traded fund; liquidity.

**JEL codes:** G11, G12, G14.

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**Title:** Pension funds, institutions and capital market development in Africa.

**Abstract:**

Pension fund assets have seen tremendous growth over the years and it has been proven in literature that the increase in the assets of pensions may lead to capital market development. The quality of institution on the other hand has also been established in literature to contribute to growth in several areas however, no work has been done in the area of growth in capital market development. The paper therefore being novel in nature seeks to examine the impact of pension fund assets and institutional quality on the development of capital markets in Africa. The study will employ a dynamic GMM model using data from the Global Financial Development of the World Bank, collected from OECD, AIOS, FIAP and national sources, as well as the World Development indicators (WDI) between the periods of 1990 to 2019. The study will contribute to literature in the following ways 1) To be the first study to be done on institutional quality and capital market development. 2) To be one of the few to look at the granger causality between pension funds and capital market development. 3) To be the one of the few studies that have examined how both pension funds and capital market lead to exclusive growth. 4) And lastly to be among the few to ascertain the effects of both pension funds and capital market development on infrastructural development in Africa since investment of pension funds is now shifting from traditional assets classes to infrastructure.

# NON-FINANCIAL, FINANCIAL PERFORMANCE AND EXECUTIVE COMPENSATION NEXUS IN EMERGING ECONOMY CONTEXT

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## Abstract

Reporting on non-financial information and how companies create value on sustainable basis has become critical in recent years. Increasing profits, share growth and dividends are no longer the only key metrics through which the companies' success is being measured. Rather, companies are expected to be responsive to social challenges facing the societies within which they operate. The objective of this paper is to investigate the interactions between executive compensation and performance measures, both financial and non-financial of the JSE listed companies. The sample is made up of the top 100 JSE listed companies whose panel data from 2015 to 2018 is analysed. Correlation and estimated generalised least square regression analysis are used to examine the executive compensation and company performance nexus. Policy makers, regulators and investors can benefit from this study through a better understanding of interplay between executive compensation and company performance not only from a financial standpoint but also from the non-financial aspects. Non-financial performance as measured by environmental, social and governance metrics within the developing economy context are becoming more important for companies' long-term sustainability.

**Key words:** Executive Compensation, Non-financial Performance, Governance, Social, Environmental, South Africa, Johannesburg Stock Exchange

**A comparison of statistical and Artificial Intelligence methods in corporate distress modelling**  
Sub Topic Financial Risk Management in Emerging Markets

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**ABSTRACT**

Corporate financial distress prediction is a pivotal aspect to economic development. The ability to foretell that a company will be getting into financial distress is essential for decision makers, shareholders and policy makers in making the best decisions and policies for sustainable development. Prediction accuracy is paramount in the implementation of distress mitigatory measures, a critical component to attract investment in particular to most of the developing countries in Africa.

The advent of the fourth industrial revolution saw Artificial Intelligence (AI) taking centre stage in financial risk modelling. This growth has however not precluded the role of traditional statistical methods in modelling financial risk. There is lack of consensus amongst academia and practitioners on the accuracy of these two groups of methodologies in distress prediction. Protagonists of the conventional school of thought still hold on to statistical methods being more accurate whilst the new age proponents believe AI has brought in higher levels of predictive strength and model accuracy.

This study seeks to compare the accuracy of Logistic Regression and Artificial Neural Networks in corporate distress prediction. The two modelling techniques will be applied on an 8-year panel dataset from the Zimbabwe Stock Exchange. The output of this study will invariably enhance predictive modelling in Zimbabwe. The model may also be applied to other surrogate countries within Africa with homogeneous characteristics to Zimbabwe. Heightened prediction accuracy is bound to improve the return to shareholders by enhancing financial risk management within emerging markets. This study also seeks to humbly contribute to the ongoing debate on the superiority between AI techniques and statistical techniques.

Logistic Regression, Artificial Intelligence, Artificial Neural Network, financial distress, predictive strength

## **Market discipline, regulation and banking effectiveness: Do measures matter?**

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### **Abstract**

We evolve competitive measures of market discipline, and explore their associated ramifications for banking, by way of the effects of Basel II adoption. Using principal component analysis on the data of 706 banks from 34 countries, we generate measures that are better reflective of market discipline universally than any single variable that is popularly in use – e.g., subordinated debt activity. Interestingly, some of our measures are more suited to assessing market discipline in emerging economies than in developed economies and vice-versa, and some are suited to use across both groups of economies. Furthermore, using impact assessment, we find that our constructs are indeed effective proxies that are variously responsive to Basel II adoption, and with some differential responsiveness between developed and emerging economies. Bank performance, measured by profitability and stability, also exhibit significant responsiveness to the adoption of market discipline, with, for instance, less disruption in developed economy banks' profitability than of emerging economy banks, and decline in loan risk in emerging economy banks versus its increase in developed economy banks. These and other results of our paper hold useful policy guides for several stakeholders of the banking industry.

*JEL Classification:* G1; G21; G28; K2; K23

*Keywords:* Market discipline, Market discipline measures, Banking regulation, Basel II, Bank performance

## **Exploring wool characteristics that determine wool price in South Africa.**

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### **Abstract**

To evaluate the effect of wool characteristics (fibre diameter/fineness, clean yield and vegetable matter) on merino and white wool that contributes to the determination of wool price in South Africa. The analysis is based on the data for the 2009 to 2018 data from Cape Wools auctions. This study has included all wool classes such as merino and white wool backs, bellies, pieces, fleeces, coarse and colour (white wool only) and lox when investigating wool characteristics that determine wool price. A multiple regression analysis of price/Kilogram of merino wool and white wool backs, lox, pieces, fleeces and bellies was applied on three variables (fibre diameter, vegetable matter and clean yield). Fibre diameter/fineness made a statistically significant contribution to the prediction of wool price, after all other independent variables were controlled for ( $p < 0.05$ ). A one decimal unit (micron) increase in fibre diameter resulted in a 0.273 unit decrease in wool price (Rand/Kilogram), after all other independent variables are taken into account. There was no statistically significant association between vegetable matter and wool price, after all other independent variables were controlled ( $p > 0.05$ ). Therefore, the association between vegetable matter and wool price that was noted was probably due to chance alone. There was a statistically significant association between clean yield and wool price, with a one decimal unit increase in clean yield associated with a 0.125 unit increase in wool price (Rand/Kilogram), after all other variables were controlled. Lastly, the predicted price for white wool was 0.417 Rand/Kilogram less than that predicted for Merino wool, with all other variables held constant.

**Key words:** Fibre diameter, Clean yield, Vegetable matter, Wool price, Merino wool, White wool.

**EFFECT OF FINANCIAL RISK ON PERFORMANCE OF NON-FINANCIAL FIRMS LISTED AT  
NAIROBI SECURITIES EXCHANGE IN KENYA**

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**ABSTRACT**

The general objective of the study will be to determine the effect of financial risk on performance of non-financial firms listed at the Nairobi Securities Exchange in Kenya. Specifically, the study will intend to establish the effect of liquidity risk on financial performance; to determine the effect of leverage risks on financial performance and to establish the effect of equity price risks on financial performance of non-financial firms. The will use descriptive cross-sectional approach and longitudinal design. The population of the study will include all listed firms at the Nairobi Securities Exchange in Kenya as at 31<sup>st</sup> December 2019. The study will employ secondary data. The source will be Nairobi securities exchange database during 2015 to 2019. Statistical package for social scientists will be employed to produce inferential and descriptive statistics. The determination of the significance of each variable under study will be done using the t-test, p-values and F-test. F-test and p-values will help in testing the suitability of the regression model. Pearson correlation coefficient,  $R^2$  and beta coefficients will also be computed.

**KEY WORDS:**

Financial Risk; Financial Performance; Leverage risks; Liquidity risk

## **Risk of Fraudulent Claims and Financial Distress in Non-Life Insurance Companies in Kenya: A Structural Equation Modeling Approach**

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### **Abstract**

*Financial distress (FD) is a common occurrence in Kenyan commercial sector and is not lacking in non-life insurance companies in Kenya. For this paper, the goal was to investigate whether fraudulent claims (FC) significantly cause financial distress in non-life insurance companies in Kenya. In accounting for insurance fraudulent claims, increases in fraudulent claims mean a reduction of profitability of an insurer, and payment of fraudulent claims drains the insurer's cash flow, thus causing financial distress. Out of 37 non-life insurance companies, registered in 2018 in Kenya, four insurers were subjected to Pilot Testing and another four companies declined to participate in the survey. Secondary data from Insurance Regulatory Authority website was retrieved for calculations of Z-scores as per Altman (1993), amended formula. By using the discriminative Z-score formula, 52% of the non-life insurance companies considered in 2018 were financially distressed, compared to 48% in 2017. However, when considering the average of ten years (2009 to 2018), financially distressed companies were 38%. Primary data was also collected through a questionnaire. A partial least squares structural equation modelling (PLS-SEM) approach was employed to affirm the researcher's hypotheses and further test whether theoretical framework was supported by primary data analysis. Goodness-of-fit (GoF) indices were used to assess the model's goodness of fit. The structural path from FC to FD was found to be significant at 5% level of significance. Financial Distress (FD) increased with an increase in fraudulent claims (FC) (regression coefficient,  $\beta = 0.31777$ , 95% CI= (0.155, 0.441)). This means that the relationship was significant in this study. In other words, for every unit increase in FC, FD significantly increased by 0.31777. However, the indirect effect of FC on FD via IRA was not significant. Hence, IRA supervision was not a significant mediating factor. In a research in the USA by A. M. Best Company, Inc. (1999), alleged fraud in insurance claims was identified as one of contributors of insurance companies' failures, accounting for 10%. An insurance fraud survey carried out by an audit firm, KPMG(Kenya) in 2014, showed that Kenyans could have paid over shs 30 billion to cover for fraud. The author further observed that companies' employees were found to be colluding with policyholders and claims agents to doctor and file illegitimate claims with the insurers. The insurance business classes which are most affected by fraud are motor and medical classes. The researchers recommends that members of staff of insurance companies be trained to effectively detect fraudulent claims; and that the insurance act be amended to give power to the board of directors in stamping out of financial distress in the insurance industry.*

**Keywords:** *Non-life insurance companies, Policyholders, Insurance Regulatory Authority, Claims Reserving, Z-Scores, Structural Equation Modelling.*

## **The Effect of Financial Sector Development on Industrialization in Tanzania**

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### **Abstract**

This paper examines the causal relationship between financial sector development and industrialization from 1990 to 2017. Using granger causality test, results show that domestic credit to the private sector and broad money granger cause industry value added. The joint effect of financial sector development granger cause both industry value added and manufacturing value added. However, industry value added and manufacturing value added did not granger cause financial sector development. Therefore, there is a unidirectional causal relationship moving from domestic credit to the private sector to industrialization hence support for the supply leading hypothesis. These results imply that there is a need for the government and financial sector players to address financial sector challenges to enable improvement in credit provision to industry and manufacturing sector to meet the objective of transforming the economy through the industrial sector of the economy.

**Key words:** Financial sector development, Industrialization, Industry value added, Manufacturing value added

## **Do Bank Characteristics affect bank lending behaviour?**

Offiong Helen Solomon, Andy Mullineux and Phillip De Jager

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### **Abstract**

This paper investigates the bank lending behaviour in South Africa to see how banks with different characteristics and different types of loans react during changes in interest rates. We find asymmetric effects in the adjustment of loan supply by banks of different characteristics during periods of monetary easing. Smaller, less liquid, poorly capitalised banks are slower in adjusting loan supply during periods of monetary easing. Our study reveals that we may be missing significant information about the monetary transmission mechanism in South Africa by not using bank loan components in analysis.

Keywords: bank characteristics, bank lending channel, monetary policy, panel data, South Africa

JEL Classification: C23, C26, E52, N17

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## Characterising Exchange Rate Policies of Selected SADC Countries before, during and after 2007/2008 Financial Crisis

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### Abstract

This paper investigated the behaviour of the exchange rates of selected SADC countries before, during, and after the 2007/2008 financial crisis through modelling the influence of the international anchor currencies on the Selected SADC currencies. For this purpose, the structural vector autoregressive (SVAR) model has been used. The results of the paper indicate that, in general, the U.S. Dollar had major influence on sample SADC currencies followed by EURO, then Chinese RMB. This shows that policymakers should concentrate on liberalising exchange rate policies rather than fixing them since fixed exchange rate regime policies often destabilise during crisis periods. Secondly, in addition to U.S. Dollar, the Chinese Yuan and EURO should be regarded as important exchange reserves, especially the countries that are not in favour of free-floating exchange rate regimes. The implication of these results is for portfolio managers and speculative traders watchfully to monitor and dissect information as part of their investment strategy.

**Keywords:** Exchange Rate Policies, international anchor currencies, SVAR

# **Determinant of Foreign Direct Investment in Sub-Saharan African Countries: Role of Third Country Effects**

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## **ABSTRACT**

There is an extensive literature on what factor determines the ability of SSA countries to increase the investment appetite of multinational enterprises (MNEs). However, there is no common ground on what really drives FDI in the region. The reason why there is diverse findings is that majority of these literatures assumes that MNE's decision to invest in a country is independent of the decision to invest in proximate countries. This study examines the role of third-country on MNEs' location choice. In achieving this, a panel of 33 SSA countries from 1996-2018 was explored using spatial econometric model. The results lend support to substitution effect of FDI in the region i.e., FDI flows to a particular host country substitute those that go into other host countries in the region. The results further suggest that the Motive of MNEs is characterized by export-platform. In addition to the evidence of spatial interdependence among countries in SSA, the empirical results provide evidence of both direct and spillover effects of FDI determinants in the region. Since the empirical outcome provides strong evidence on the impact of FDI promotional policies of neighbouring countries on host country's ability to attract FDI, we recommend that host economy should take into consideration surrounding country characteristics in their FDI-policy formulation.

**Keywords:** Foreign Direct Investment, Third-Country effect, Spatial Econometrics, Export Platform, and Sub-Saharan African Countries

## **Determinants of Cash Holdings: Evidence from Mauritian Financial and Non-Financial Sectors**

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### **Abstract**

The corporate cash holding decision is a very important financial decision for firms as it not only reflects the business plan and financial strategy but is also closely related to the internal governance of the firm and the external macro environment. Although there are many studies that have studied cash holdings, there is a limited literature from the perspective of small island economies, like Mauritius. The objective of the study is to identify the determinants of cash holdings of listed firms operating in the different sectors in Mauritius comprising the financial and nonfinancial sectors. The study has a special focus on debt maturity ratio and seeks to assess if the maturity of debt magnifies or reduces the impact of debt on cash holdings. The study uses secondary data for two categories of firms comprising financial and non-financial firms over the period 2009-2019. The study finds that growth opportunities, leverage and debt structure, cash flow, net working capital and profitability are all important drivers of corporate cash holding policy and their significance is more pronounced when each sector is considered individually. The paper has important policy implications regarding liquidity policy and optimal amount of cash holdings for firms in different sectors. It can improve the knowledge of decision makers such as shareholders, managers, and investors about what motivates firms to hold a certain level of cash holdings.

**Keywords** Cash holdings, Determinants, Financial and Nonfinancial firms, Debt maturity structure

**Multinational enterprises and capital flight from host African nations: An x-ray of the challenges of retaining trade revenues for continental development.**

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**Abstract**

**Orientation:** Multinational enterprises (MNEs) have been documented to significantly influence the socio-economic fortunes of their host nations particularly in Africa and most of the 'developing world'.

**Research purpose:** Whilst it is not disputed that some of these MNEs bring a measure of 'economic value' to their host nations in Africa, reports also abound to the effect that they sometimes serve as conduits for the repatriation of vast sums of money to their home countries or 'safe havens' outside of their host nations. From a purely social scientific, human development point of view, this paper, as a preliminary empirical effort, examines how the reported phenomenon of capital flight from selected African countries could potentially negatively affect the lot of the host nations of MNEs.

**Motivation for the study:** There is a need to put into empirical perspective some of the factors plaguing the socio-economic development of Africa. This paper undertakes that task from the perspective of capital flight from selected African host nations of MNEs.

**Research design, approach, and method:** Drawing largely from anecdotal and popularly reported cases from, at least, three geographical regions of the continent. This paper employs targeted systematic reviews and case research of selected reported cases to analyse the phenomenon under consideration. This interpretivist, qualitative approach was adopted with a view to put forward a somewhat empirical evidence of the potential socio-economic effects on human development indicators occasioned by capital flight from the continent.

**Main finding(s):** As is to be expected, the study determined that the phenomenon of capital flight is a reality though often shrouded in largely complex, sometimes opaque channels and practices. It was further found that whilst the human development impacts can often be gleaned, the extent of the economic effect, though enormous in monetary terms, cannot always be precisely determined.

**Practical implications:** One of the 'practical values of this type of study is that it enables the extrapolations that can be undertaken by monetary or other economists to project the economic impact of MNEs on their host nations in Africa thus advancing the vigilance that would be necessary to mitigate against the potential negative impact of capital flight on the development of the host nations.

**Contributions:** Loosely straddling the fields of Development Economics and Human Capital Development the paper promotes the interrogation of often difficult phenomena to trigger the debates that are necessary to advance development in Africa from a trans-disciplinary viewpoint.

**KEYWORDS:** *Multi-national Enterprises (MNEs), Human Development Index, Capital Flight, Poverty, International Trade.*

## Stock Market and Economic Growth: Evidence from Africa

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**Abstract:** We assessed the impact of stock market development on growth in Africa. It uses annual data from a panel of 9 countries in Africa over the period 1992–2017. Panel Vector Autoregressive (P-VAR) econometrics technique is used in data analysis. Our main findings are that Stock market development has a positive effect on economic growth, Investment, human capital formation, and openness positively influence economic growth in Africa. Macroeconomic instability (inflation) and government expenditure impact economic growth negatively. The paper also finds that using the impulse response function, economic growth reacts to the stock market for 8 years and goes back to the initial level.

**Keywords:** *Stock market, economic growth, panel vector autoregressive*

*JEL CLASSIFICATION:* G00, O16, C23

# THE IMPACT OF AVAILABILITY OF BUSINESS CREDIT FACILITY ON SMALL AND MEDIUM SCALE ENTERPRISE (SME) DEVELOPMENT IN HIGH DENSITY CLUSTER CITIES IN NIGERIA

By

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## Abstract

Globally, Small and medium enterprises (SMEs) have contributed immensely to the social-economic development of a country and thus are regarded as the core or foundation of a nation's economy. SMEs remain a true source of job creation in both the industrialized and the developing economies, including Nigeria. SMEs' access to credit is recognized as an essential strategy for the achievement of Sustainable Development Goals (SDGs) and the African Union Agenda 2063. The shortage of resources has been recognized internationally as the most important problems of setting up and operating SMEs. The main objective for the study is to ascertain the impact of availability of business credit facility on SMEs development in high density clustered cities in Nigeria. Descriptive survey design was used for this study and three hundred and ninety-three SME owners across three high density clustered cities (Lagos, Oyo and Ogun States) participated in the study giving rise to a response rate of 80.8%. Regression was used to evaluate the relationship that exist between the availability of credit facility and SMEs development and the findings revealed a strong impact of availability of credit facility on the SME development. The findings also revealed some of the challenges that hinder the SMEs from accessing credit facility. Therefore, to enhance availability and accessibility of credit facilities to SMEs, there is the need to remedy challenges presented in study, top of which is lack of financial records. It was therefore recommended that SMEs should be enlightened on the need to have adequate financial records in order to be able to access the available credit facilities.

**Key words: Credit facility, SMEs development, Sustainable Development Goals, financial records**

## **Artificial Intelligence Function Mapping to Calibrate the Determinants of SMME Performance**

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Constituting more than 90% of private-sector enterprises, the small, medium, and micro-enterprise (SMME) is regarded as the engine of socio-economic development across the globe. Consequently, various stakeholders, especially in emerging economies, have developed a significant interest in SMMEs as they aim to find ways through which the sector can be harnessed to address the considerable challenges of unemployment, poverty, and inequality. Various studies have since been carried out to establish the key drivers impacting small enterprises' performance in light of this growing interest. However, despite many studies, SMMEs continue to struggle in developing countries, with the failure rate, in countries like South Africa reaching up to 95% within the first year of operation. This trend demands innovative approaches that can efficiently and accurately map the critical determinants of SMME performance. A literature review showed that most studies on this area, especially in South Africa's KwaZulu Natal (KZN) province, relied on parametric techniques. Our study extended prior efforts by implicating a production theoretic approach to model SMME performance. We investigate how various features contribute to the highly nonlinear system of sector performance as proxied by productivity. Our study offers a new and novel approach to estimating manufacturing SMMEs' elasticity metrics for the productivity function.

With a focus on identifying the determinants of firm performance, the study utilized three-year panel data obtained by surveying 191 manufacturing SMMEs. Following a double-log specification of a productivity function, we employ an enhanced Radial Basis Function Artificial Neural Network (K4-RANN) to efficiently map the productivity function and estimate the elasticity coefficients. The results show urban-based SMMEs experience negative elasticity compared to their rural counterparts. Unlike popular belief, SMME's show no gender differences in productivity. But we do observe that the owner's age has a negative elasticity for female-owned urban SMMEs. Additionally, permanent and temporary workers' elasticities varied by gender and location. SMME age, Pty registration type and website use had negative elasticities. As expected, total assets had positive elasticities. Overall, KZN manufacturing SMMEs experience decreasing returns to scale, which is more pronounced for rural-based firms. A confirmatory analysis was conducted to establish the extent to which SMMEs are aware of the impact (magnitude) and effect (positive/negative) of the specified performance determinants. The analysis showed that, in general, SMME owners in KZN are not fully aware of the relative importance of performance determinants. Our study concludes by providing policy recommendations for government agencies and stakeholder groups to help SMMEs achieve sustainability and increase operational efficiency.

## Effect of some Enterprise Risk Management Variables on Financial performance of Insurance firms in Kenya

*Martin Odipo*

### ABSTRACT

*The study investigates the effect of Enterprise Risk Management (ERM) on financial performance of insurance companies in Kenya based on return on assets (ROA). The specific objectives of the study are; analyze the effect of liquidity risk management, analyze the effect of firm size, analyze the effect of credit risk management, analyze the effect the effect of frequency of statutory audits and analyze the effect of frequency of board meetings of insurance firms in Kenya in relation to their financial performance. Secondary data is obtained from published reports of 54 registered insurance companies by IRA for a period of 10 years, from 2009 to 2019. SPSS software is used in the analysis of the quantitative data which include diagnostic tests, descriptive statistics, Pearson correlation matrix and regression analysis. The findings are presented using tables. The results of the study established that there is positive correlation between independent variables (credit risk management, firm size, frequency of statutory audits and frequency of board meetings) and dependent variable (financial performance). However there is a negative correlations between liquidity risk management and financial performance. In conclusion there is significant benefit that will arise if firms use ERM tool.*

**Keywords:** *Enterprise Risk management, financial performance, insurance firm*

**Equity and Social Cohesion:**

**Do Social Protection Expenditures Reduce Internal Conflicts?**

Wasseem Mina<sup>1</sup>

**Abstract:**

Social welfare provision can affect the likelihood of civil war onset and reduce it (Taydas and Peksen 2012). Government welfare spending can shape the perceptions and preferences of citizens and social actors towards the state in ways that discourage use of violence to achieve political goals. By improving standards of living, promoting economic development, and reducing impact of poverty, higher levels of social spending increase the opportunity cost of conflicts. Social welfare provision strengthens the state and helps the state maintain its legitimacy and gain people support.

This paper explores the influence of the government equity-promoting function on social cohesion. It empirically investigates the hypothesis that public social protection expenditures reduce internal conflicts. It uses panel data on 58 developed and developing countries over the period 1984-2016 and adopts FGLS and 2-step system GMM estimation methodologies to account for panel heteroskedasticity and autocorrelation and endogeneity. Results show that social protection expenditures have a positive influence on reducing internal conflicts, lending support to this hypothesis. Economic growth, and trade and financial openness have a similar positive influence.

*Keywords:* Welfare state; social cohesion; social protection; conflicts; endogeneity

*JEL:* H53; D63; D74; D71

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# Topic Classification of the Monetary Policy Statements of the Central Bank of Lesotho: Evidence from Latent Dirichlet Allocation (LDA)

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## ABSTRACT

This paper uses Latent Dirichlet Allocation (LDA), a method of topic classification through machine learning algorithm, to develop a baseline on how to analyse the Monetary Policy Statements of the Central Bank of Lesotho (CBL). The topic classification is done on the CBL Monetary Policy Statements from February 2017 to January 2021, to evaluate how the distributions of topics has changed over time. The three-topic LDA model extracted topics that remained prominent throughout the sample period and were most closely reflective of the functions of the CBL Monetary Policy Committee. The topics identified were: (i) International Monetary and Financial Market Conditions; (ii) Monetary Policy Committee and International Reserves and, (iii) Regional and International Economic Policy Conditions, respectively. The three-topic LDA model was determined as the most appropriate model through which consistent analysis of topic evolution in CBL Monetary Policy Statements can be performed.

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## ARTICLE INFO

*Keywords:*  
Monetary Policy Statement, Topic Modelling, Central Bank, Lesotho, Latent Dirichlet Allocation

# Financial Behaviour, Self-Control Bias and Retirement Planning in Kenya

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## Abstract

The shift by employers towards defined pension contribution schemes from defined pension benefits schemes are increasingly forcing employees to take personal responsibility of securing their future financial wellbeing through intentional retirement savings. However, financial behavior which differs from one individual to the next, may have significant bearing on whether employees take up and meet their contributory retirement obligations, while avoiding financial distress. This paper evaluates how the interaction of self-control bias and financial behaviour influences the likelihood of pension scheme members to comprehensively plan for their retirement. Using primary data from 332 members of different pension schemes and a binary logistic regression, the study finds that although financial behaviour is significant in explaining retirement planning, an interaction of financial discipline and self-control bias reduces this relationship, implying that self-control bias reduces the likelihood to plan comprehensively for retirement among those who are already financially disciplined. The study recommends the use of behavioural change interventions and programs in financial education initiatives to inculcate self-control among pension scheme members to act responsibly and encourage them to plan comprehensively for their retirement.

**Keywords:** Financial behaviour, self-control bias, retirement planning, pension.