Abstracts of articles in other South African journals

DE JURE

Ngidi, M (2020). The termination of the bank client relationship in South African banking law. *De Jure* **53**(1), 54–69

In the year 2015/16, some of the major South African banks such as Standard Bank, terminated its bank-client contracts with its customers. The customers argued that Standard bank issued no notice of termination of these bank-client contracts. Alternatively, if the bank issued the notice of termination, the period thereof was insufficient for the client to arrange for an alternative banking option. As a result, the client argued that Standard Bank unlawfully terminated the bank-client relationship. Consequently, this paper examines this termination by considering, i) the nature of their relationship, ii) the duties of both the bank and the client, iii) and iv) the ways and circumstances which the bank-client contract may be terminated in South African banking law.

INVESTMENT ANALYSTS JOURNAL

Katzke, N & Van Tidden C (2019). FTSE/JSE Index migration: testing for a tradeable index effect. *IAJ* **48**(4), 298–317

This paper studies whether periodic changes to the constituents in the Swix Top 40 Index leads to price distortions at quarterly rebalancing. Following large and predictable spikes in trade of affected stocks around rebalancing, the natural question is whether this produces a profitable arbitrage trade. Considering excess returns over key rebalancing dates we find that a profitable (yet risky) long-short trade exists, but that the timing of this strategy is key (notably early entry and exit). We also find no evidence of medium-term benefits to being included in the Swix Top 40, apart from higher liquidity for entrants.

ORION

Venter, PJ & Maré, E (2020). GARCH option pricing models in a South African equity context. *ORION* **36**(1), 1–17

In this paper, different univariate GARCH option pricing models are applied to the FTSE/JSE Top 40 index to determine the best performing model when modelling the implied South African Volatility Index (SAVI). Three different GARCH models (one symmetric and two asymmetric) are considered and three different log-likelihood functions are used in the model parameter estimation. Furthermore, the accuracy of each model is tested by comparing the GARCH implied SAVI to the historical SAVI. In addition, the pricing performance of each model is tested by comparing the GARCH implied price to market option prices. The empirical results indicate that the models incorporating asymmetric effects outperform competing models in terms of pricing performance.

Du Pisanie, J & Visage, IJH (2020). On testing the hypothesis of population stability for credit risk scorecards. *ORION* **36**(1), 19–34

Scorecards are models used in credit risk modelling. These models segments a population into various so-called "risk buckets" based on the risk characteristics of the individual clients. Once a scorecard has been developed, the credit provider typically prefers to keep this model in use for an extended period. As a result, it is important to test whether or not the model still fits the population. To this end, the hypothesis of population stability is tested; this hypothesis specifies that the current proportions of the population in the various risk buckets are the same as was the case at the point in time at which the scorecard was developed. In practice, this assumption is usually tested using a measure known as the population stability index (which corresponds to the asymmetric Kullback–Leibler discrepancy between discrete distributions) together with a well-known rule of thumb. This paper considers the statistical motivation for the use of the population stability index. Numerical examples are provided in order to demonstrate the effect of the rule of thumb as well as other critical values. Although previous numerical studies relating to this statistic are available, the sample sizes are not realistic for the South African credit market. The paper demonstrates that the population stability index has little statistical merit as either a goodness-of-fit statistic to test the hypothesis of population stability or as an intuitive discrepancy measure. As a result, a novel methodology for testing the mentioned hypothesis is proposed. This methodology includes a restatement of the hypothesis to specify a range of "acceptable" deviations from the specified model. An alternative test statistic is also employed as discrepancy measure; this measure has the advantage of having a simple heuristic interpretation in the context of credit risk modelling.

MEDITARI

Du Preez, H & Stoman, J (2020). An analysis of current tax revolt factors in South Africa. *MEDAR* **28**(3)

The purpose of this study is to determine whether the factors once identified through literature and compared to the current situation in South Africa could predict the possibility of a tax revolt in South Africa. South Africans are experiencing frequent increases in taxes on already overburdened taxpayers, corruption, a lack of service delivery by the government and high unemployment rates. South Africa has seen an increased amount of protests relating to taxes, corruption and a lack of basic services. In total, 12,000 Twitter feeds were collected from 14 February 2017 to 1 March 2017, the period before, during and after the South African National Budget Speech on 22 February 2017. The feeds were analysed using a thematic analysis. The emerging themes were identified as factors present in South Africa that may predict a possible tax revolt. The factors found to be present in South Africa are: F1-failure of government to address the imminent collapse, F2-significant number of people with substantial debt, F3-onerous tax systems, including many different types of taxes, F4-high number of unemployed people, F5-education frustration, F6-increase in tax rates on citizens already overburdened by current taxes, F7-poor quality of governors, and performance of the country's leaders and administration, including fraud and F8-wastefulness. The value of the study is, first, to contribute to the existing academic literature examining the factors that are likely to indicate a tax revolt. Second, the study uses an innovative data source, namely, tweets, to examine the climate for a possible tax revolt in South Africa.

Bhattacharyya, A & Rahman, ML (2020). Mandatory CSR expenditure and stock return. *MEDAR* **28**(6)

India has mandated corporate social responsibility (CSR) expenditure under Section 135 of the Indian Companies Act, 2013—the first national jurisdiction to do so. The purpose of this paper is to examine the impact of mandated CSR expenditure on firms' stock returns by using actual CSR spending data, whereas the previous studies mostly focus on voluntary CSR proxied by CSR scores. The authors estimate their baseline regression by using ordinary least squares(OLS) method. Although the baseline regression involving CSR expenditure and stock returns using ordinary least squares method are estimated, endogeneity and reverse causality biases are addressed by using two-stage least squares and generalised method of moments approaches. These approaches contribute mitigating endogeneity bias and biases associated with unobserved heterogeneity and simultaneity. The findings document that mandatory CSR expenditure has a negative impact on firms' stock returns which supports the "shareholders" expense' view. This result remains robust after controlling for endogeneity bias and the use of both standard and robust test statistics. The authors observe that this result holds for the firms with actual CSR expenditure equal to the mandated amount but not for the firms with actual CSR expenditure greater than the mandated amount. Therefore, the authors provide evidence that CSR expenditure's impact on stock returns depends on whether firms simply comply with the regulation or voluntarily chose an amount of CSR expenditure above the mandated

amount. The primary contribution is to present a valid and robust evidence of negative effect of mandated CSR spending on firms' stock returns when the mandatory CSR spending rule is already in place. This study contributes by examining the impact of mandated CSR spending on stock during post-implementation period (2015-2017), whereas other studies by Dharampala & Khanna (2018), Kapoor & Dhamija (2017), and Mukherjee et al. (2018) mainly examined the impact of legislation on Indian CSR. The authors use mandated actual CSR expenditure, whereas previous studies mostly focus on voluntary CSR proxied by CSR scores.

SOUTH AFRICAN JOURNAL OF ACCOUNTING RESEARCH

Steyn, B, Kwenda, F & Stainbank, L (2020). Do board level controls matter? An agency perspective on socially responsible investment (SRI) company boards in South Africa. *SAJAR* **34**(3), 205–35

If board-level controls matter, the introduction of the 2008 Companies Act with its enhanced legislative requirements, should have a positive impact on firm performance. To assess board-level controls this study developed two unique control indexes to assess the boards of 84 companies over three years. The study focuses on companies on the SRI index as they have a greater focus on sustainability and transparent disclosure of board-level controls including separation of duties, monitoring, goal-aligned remuneration and oversight. The first index uses 23 board-level control indicators (CI) and the second 19 board-level direction indicators (DI). The two indexes were assessed using fixed effects estimation methods against current and negatively lagged firm performance proxies. Results show that board-level controls matter as both indexes were positively related to return on assets (RoA), however, only DI was highly significant. Both indexes changed to a negative relationship to next year's return on assets (NYRoA), again highly significant for DI. The change to a negative relationship suggests a timing and information asymmetry problem. CI was positively related to the natural log of enterprise value per share (LEV) with a low level of significance while the positive relation continues to the next year's natural log of enterprise value per share (LNYEV) that was highly significant. The latter suggests that the controlling role of the board are continued to be valued by the market.

SOUTH AFRICAN JOURNAL OF BUSINESS MANAGEMENT

McCallum, S & Viviers, S (2020). Exploring key barriers and opportunities in impact investing in an emerging market setting *SAJBM* **51**(1)
Purpose: Impact investing is one of the fastest-growing responsible investment strategies globally. Although more than two-thirds of global impact investments occur in emerging markets, limited research has been undertaken on the topic in an emerging market context. The authors investigated the main barriers and opportunities that impact investors face in the largest impact investment market in sub-Saharan Africa, namely, South Africa.

Methodology: Semi-structured face-to-face and telephonic interviews were conducted with 13 South African asset managers and service providers in the local impact investment market. Directed content analysis was used to identify recurrent and contrasting themes.

Results: According to the expert participants, the most important barriers centre on the shortage of investment-ready deals and the lack of detailed and clearly formulated social and environmental impact objectives. The interviewees were of the opinion that growth in the local impact investment market was primarily driven by the prospect of earning a financial return whilst generating positive social and environmental impact.

Practical implications: Once a clear understanding of the barriers and opportunities is established, it is more likely that effective, context-specific solutions can be developed. The South African impact investment market's growth prospects could remain stunted until lifecycle support is improved for small- and medium-sized social enterprises to generate more investment-ready deals.

Value: The barriers and opportunities highlighted in this paper are not all-encompassing but provide a useful framework for local impact investors and other role players in the market to navigate the complex emerging market business environment. This study, therefore, provides a valuable contribution to the limited body of knowledge of impact investing in South Africa and similar emerging markets.

SOUTH AFRICAN JOURNAL OF ECONOMIC AND MANAGEMENT SCIENCES

Kisten T (2020). Macroeconomic implications of uncertainty in South Africa. *SAJEMS* **23**(1)
Aim: This article explores the extent to which economic policy uncertainty (EPU) influences selected macroeconomic variables in South Africa (SA).

Methods: To this end, I construct a constant parameter vector autoregressive (VAR) model and a time-varying parameter (TVP) VAR model, where the latter model evaluates if the impact of uncertainty on the macroeconomic variables has changed over time.

Setting: The models are estimated using quarterly South African data over the period 1990 to 2015, which include industrial production growth, consumer price inflation, 10-year government bond yield, real effective exchange rate, and economic policy uncertainty. Cholesky ordering of the variables are imposed to recover the orthogonal shocks.

Results: The results of the constant parameter VAR model suggest that an unanticipated positive shock to the uncertainty index results in a decline in industrial production and real effective exchange rate, while fostering an increase in the general price level and 10-year government bond yield. Time-varying impulse responses show that the impact of uncertainty shocks on the selected macroeconomic variables has declined systematically over time. This is perhaps intuitive as the new unanticipated information is gradually picked up by media over time and incorporated into rational agents' decision-making.

Conclusion: The transmission of a positive uncertainty shock to the real economy has time-varying implications.

Van Heerden, C (2020). Establishing the risk denominator in a Sharpe ration framework for share selection from a momentum investment strategy approach. *SAJEMS* **23**(1)

Background: Based on the static mean-variance portfolio optimisation theory, investors will choose the portfolio with the highest Sharpe ratio to achieve a higher expected utility. However, the traditional Sharpe ratio only accounts for the first two moments of return distributions, which can lead to false portfolio performance diagnostics with the presence of asymmetric, highly skewed returns.

Aim: With many criticising the standard deviation's applicability and with no consensus on the ascendency of which other risk denominator to consult, this study contributes to the literature by validating the importance of consulting value-at-risk as the more commendable risk denominator for the Johannesburg Stock Exchange.

Method: These results were derived from a novel index approach that produces a comprehensive risk-adjusted performance evaluation score.

Results: Of the 24 Sharpe ratio variations under evaluation, this study identified the value-at-risk Sharpe ratio as the better variation, which led to more profitable share selections for long-only portfolios from a one-year and five-year momentum investment strategy perspective. However, the attributes of adjusting for skewness and kurtosis exhibited more promise from a three-year momentum investment strategy perspective.

Conclusion: The results highlighted the ability to outperform the market, which further emphasised the importance of active portfolio management. However, the results also confirmed that active and more passive equity portfolio managers will have to consult different Sharpe ratio variations to enhance the ability to outperform the market and a buy-and-hold strategy.

Mitteran, E & Nkongho, DM (2020). Long-run performance of corporate spin-offs and sell-offs. Evidence from the JSE Limited. *SAJEMS* **23**(1)

Background: Prior to 1994, there were artificial restrictions on South African corporations as a result of isolation and sanctions. Thus, corporate unbundling activities in South Africa are still new relative to their overseas counterparts. Of recent, no study has vividly examined the long-run performance of spin-offs and sell-offs on the JSE Limited. In the most recent study on spin-offs and sell-offs, performance was investigated for less than 2 years. Long-run performance of spin-offs and sell-offs should be examined for at least 3 years in line with overseas literature. In order to fill the gap in previous literature, this study updates existing literature, and extends the investigation horizon to 4 years.

Aim: This study seeks to investigate the long-run performance of spin-offs and sell-offs on the JSE Limited.

Settings: This study matches the performance of an event firm to that of a non-event firm. The matching was done at sector and industrial level, using the value of equity as a matching measure. Performance was examined between 2000 and 2016, for up to 4 years.

Methods: The method of analysis is the matching firm technique under buy and hold abnormal returns. The creation of shareholder's wealth was investigated for 26 spin-offs, 17 parent spin-offs, 16 sell-offs and 23 parent sell-offs.

Results: Abnormal returns are significantly positive for spin-offs, parent spin-offs and sell-offs for 1–4 years after unbundling. Only parent sell-offs failed to follow this path.

Conclusion: According to this study, spin-offs and sell-offs unlock shareholders' wealth for up to 4 years on the JSE Limited.

Van der Merwe, B, Malan, J & Bruwer, R (2020). Intention to quit in the financial services industry: Antecedents and managerial implications. *SAJEMS* **23**(1)

Background: A review of the literature revealed that the demanding and often challenging nature of work increases the turnover intention of employees. This trend is especially evident within the South African financial services industry.

Aim: The research goal was to explore and empirically test a theoretical model identifying the most salient causes of turnover intention among sales employees employed by financial organisations operating in the South African financial service industry.

Setting: The study was conducted on employees operating within the financial service industry in South Africa.

Methods: The current study collected quantitative data from 102 employees of insurance or banking or investment companies, using a web-based compilation of standardised questionnaires. This followed a previous study by the research group that collected quantitative and qualitative data from 122 employees operating in an insurance environment, using a combination of an open-ended questionnaire and standardised instruments.

Results: The results of the current study confirmed the significance of the paths between turnover intention and employee engagement, time wasted on non-core activities, perceived career development opportunities, and perceived supervisor support, mediated by perceived employee engagement.

Conclusion: A replication of this study using a longitudinal research design is recommended in order to overcome the methodological limitations of the current study. The conceptual model developed in this study identified relationships that could be used as guidelines to effectively manage the retention of personal financial advisors in the financial service industry in South Africa.

Vermeulen, C (2020). On the mandate, ownership and independence of the South African Reserve Bank. *SAJEMS* **23**(1)

It has been suggested that the South African Reserve Bank (SARB) is not doing enough to support economic growth and employment creation. There is confusion in the public debate, however, as three distinct concepts—the SARB's mandate, ownership and independence—are often inaccurately lumped together and misinterpreted. This clouds the debate, and hinders progress. This article attempts to focus and stimulate the academic debate by distinguishing between these three distinct, yet interrelated, concepts, and to clarify misunderstandings and misinterpretation. It also suggests some avenues through which each could be investigated further, and how different dimensions to the problem could be considered independently.

SOUTH AFRICAN JOURNAL OF ECONOMICS

Chitiga-Mabugu, M, Henseler, M, Mabugu, R & Maisonnave, H (2020). Economic and distributional impact of COVID-19: Evidence from macro-micro modelling of the South African economy. *SAJE*

A computable general equilibrium model linked to a microsimulation model is applied to assess the potential short-term effects on the South African economy of the ongoing COVID-19 pandemic. With a particular focus on distributional outcomes, two simulations are run, a mild and a severe scenario. The findings show significant evidence of decline in economic growth and employment, with the decline harsher for the severe scenario. The microeconomic results show that the pandemic moves the income distribution curve such that more households fall under the poverty line while at the same time, inequality declines. The latter result is driven by the disproportionate decline in incomes of richer households while the poorest of the poor are cushioned by government social grants that are kept intact during the pandemic. The COVID-19 pandemic is still unfolding and its economic modelling as well as the data used to operationalise the model will need to be updated and improved upon as more information about the disease and the economy becomes available.

Van Heerden, J & Roos, EL (2020). The possible effects of the extended lockdown period on the South African economy: A CGE analysis. *SAJE*

The economic effects of the lockdown period in South Africa will be devastating. We simulated the industry level capacity constraints imposed by the lockdown regulations since 27 March 2020 on all industries in South Africa by reducing the amount of capital and labour available for production. We found a decrease in real GDP to 10% below the baseline level in 2020, and recovery of all industries and macroeconomic variables towards the baseline by 2027. Industries that are suffering and would continue to suffer are the hospitality and tourism industry and all industries related to it, such as transport services, as well as beverages and tobacco. Manufacturing in general is also hard hit because they were prohibited to let large groups of labourers enter their premises. The model shows that most manufacturing will suffer throughout the forecast period, which was modelled up to 2027.

Lee, C, Chen P-F, Zeng, J-H (2020). Bank income diversification, asset correlation and systemic risk. *SAJE* **88**(1), 71–89

This paper explores whether the asset correlations among the non-interest activities of banks are the key causes for enhancing the bank diversification-systemic risk nexus. Our empirical evidence indicates that banks' income diversification significantly raises systemic risk. After removing those banks with high asset correlations, the effect of individual banks' diversification on banking systemic risk turns insignificant or even inverse. The results show that high asset correlations among banks could introduce bank failures, thereby leading to higher systemic risk in the financial sector.

Farrell, G & Kemp, E (2020). Measuring the financial cycle in South Africa. *SAJE* **88**(2), 123–44

We measure the financial cycle of South Africa using three different methodologies. The financial cycle is identified using credit, house prices and equity prices as indicators, and estimated using traditional turning-point analysis, frequency-based filters and an unobserved components model-based approach. We then consider the financial cycle's main characteristics and examine its relationships with the business cycle. We confirm the presence of a financial cycle in South Africa that has a longer duration and a larger amplitude than the traditional business cycle. Developments in measures of credit and house prices are important indicators of the financial cycle, although the case for including equity prices in the measures is less certain. Periods where financial conditions are stressed are associated with peaks in the financial cycle, suggesting that the estimated financial cycle may have similar leading indicator properties to financial conditions or stress indices.

SOUTH AFRICAN MEDICAL JOURNAL

Reid, SJ, Naidu, C, Kantor, G & Seebregts, CJ (2020). Do electronic patient information systems improve efficiency and quality of care? An evaluation of utilisation of the Discovery Health ID application. *SAMJ* **110**(3), 210–16

Background: Electronic health records (EHRs) appear to offer a number of potential benefits, but practitioners are often hesitant to make the transition to using them.

Objectives: To determine whether the use of one such system, designed and offered by a health insurer (HealthID; Discovery Health), makes a difference to the efficiency and quality of doctor-patient consultations.

Methods: A descriptive study using mixed methods was designed. A qualitative phase of individual interviews of purposefully sampled respondents was followed by a quantitative survey of a random sample of general practitioners and specialists who were registered users of the system.

Results: In the qualitative findings, 18 respondents reported their perceptions of the ease of use of the application, their motivation for using it, its functions and benefits, the impact on efficiency and quality of care, and the challenges they experienced. They reported on the details of the challenges of using the system, and made suggestions for improvements, particularly with regard to the need for training and IT support. The quantitative results from the majority of 93 respondents confirmed that while the use of the app improved patient care through positive effects on specific functions such as access to accurate patient records and easier Chronic Illness Benefit applications, they felt that it had an equivocal impact in other areas, such as maintaining patient confidentiality and enhancing teamwork and efficiency. The financial incentives offered by Discovery Health, as well as possibly the training and support provided, appear to be more influential for high-frequency than for low-frequency users. The majority said that it did not help with referrals or script writing, or with access to International Statistical Classification of Diseases and Related Health Problems, 10th revision (ICD-10) codes.

Conclusions: EHR systems like Discovery Health's HealthID could improve the efficiency of medical consultations by increasing access to stored health information without requiring data entry by clinicians, and thereby have the potential to indirectly improve the quality of care, provided that certain conditions are met.