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The accounting treatment of expected credit losses by South African banks during COVID-19

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Orientation: The coronavirus disease 2019 (COVID-19) pandemic negatively affected borrowers' ability to repay debt, which is expected to influence banks' calculation of their expected credit loss (ECL) allowance. Comprehensive disclosure regarding the application of managerial judgement in calculating ECLs would produce decision-useful financial information.

Research purpose: This study explored the effects of the COVID-19 pandemic on the measurement and disclosure of ECL allowances by South African listed banks.

Motivation for the study: It is unknown whether decision-useful financial information regarding South African banks' ECLs was produced during the pandemic, mirroring developed countries.

Research approach/design and method: Content analysis of quantitative and qualitative data from annual financial statements was employed for a sample of listed banks.

Main findings: Banks employed a variety of relief measures to accommodate borrowers, but these relief measures did not automatically trigger a significant increase in credit risk. More loans were subject to lifetime ECLs, causing the ECL allowance to increase substantially during the first year of the pandemic. Forward-looking information as well as postmodel adjustments were employed to measure the ECL allowance.

Practical/managerial implications: The ECL allowances of South African listed banks increased during the pandemic. Disclosure in the annual financial statements and identifying ECLs as a key audit matter provided evidence of adequate consideration of the credit risk and forward-looking information influencing ECLs by banks and their auditors. Improved disclosure regarding postmodel adjustments is required.

Contribution/value-add: During the COVID-19 pandemic, decision-useful financial information regarding the calculation of banks' ECL allowances was available for South African banks, mirroring developed countries.

Keywords: COVID-19; expected credit losses; banks; impairment; IFRS 9; South Africa; accounting treatment; relief measures; significant increase in credit risk; allowance for credit losses.

Introduction

The global financial crisis of 2008 (GFC) led to the International Accounting Standard (IAS) 39, the standard prescribing the accounting treatment of financial assets and liabilities at the time being scrutinised (Pucci & Skærbæk 2020). One of IAS 39's shortcomings was deferring the recognition of credit losses on loans and receivables until too late in the credit cycle (Beerbaum 2020; Engelmann & Lam Nguyen 2022). To remedy IAS 39's shortcomings, the International Financial Reporting Standard (IFRS) 9 was developed (Beerbaum 2020; Pucci & Skærbæk 2020). International Financial Reporting Standard 9 applies a forward-looking approach, meaning an allowance for credit losses is recognised based on expectations instead of actually incurred losses (Gubareva 2021; Stander 2021). International Financial Reporting Standard 9's expected credit loss (ECL) model is preferred as it could reduce the financial effects of procyclicality in banks (Pucci & Skærbæk 2020), leading to greater financial stability (Novotny-Farkas 2016). Moreover, employing the ECL model and adhering to its disclosure requirements are expected to provide more decision-useful financial information, which is critical during periods of economic downturn (Novotny-Farkas 2016; Stander 2021). However, IFRS 9's possible benefits 'will crucially depend on its proper and consistent

application across jurisdictions' (Novotny-Farkas 2016), given that it requires a principle-based, rather than rule-based, approach to calculating ECL allowances (Gubareva 2021).

During 2020 and 2021, the coronavirus disease 2019 (COVID-19) pandemic caused global financial distress and economic downturn. Banks played an integral role in easing the financial effects of COVID-19 on their customers by instituting relief measures, such as payment holidays (Engelmann & Lam Nguyen 2022; The Banking Association South Africa 2020). The economic effects of COVID-19, coupled with the relief measures provided by banks to customers, are expected to impact the measurement of the ECLs of banks (Engelmann & Lam Nguyen 2022; International Accounting Standards Board [IASB] 2020). In times of economic uncertainty, such as COVID-19, estimating future credit defaults becomes more difficult as historical information has less predictive value, resulting in increased reliance on management's judgement regarding forward-looking information. As such, proper application of the ECL model in IFRS 9 and adequate disclosure relating to the measurement of the ECL allowance are imperative in providing decision-useful financial information to users of annual financial statements and to reduce the risk of earnings management (Novotny-Farkas 2016; Stander 2021).

Previous studies have researched the effect of COVID-19 on the ECL allowances of IFRS-applying banks by considering only quantitative data (Engelmann & Lam Nguyen 2022; Hladika 2021) or both quantitative and qualitative data (Brouwer, Huttenhuis & Ter Hoeven 2021). However, as Brouwer et al. (2021) only studied banks in developed countries, no study had investigated the effect of COVID-19 on the measurement and disclosure of banks' ECLs in a developing country, such as South Africa, by integrating both quantitative and qualitative data. One cannot always extrapolate the results of research conducted in developed countries to research conducted in a developing country, given that the level of economic activity and regulatory environment differs (Steenkamp & Wesson 2020; Wesson et al. 2018). Moreover, government intervention and the relief measures applied by banks could vary between countries (Engelmann & Lam Nguyen 2022). As a result, the objective of this study was to explore whether COVID-19 affected the accounting treatment (which includes measurement and disclosure) of ECLs in terms of IFRS 9 by South African listed banks.

The findings would contribute to understanding the effects of COVID-19 on ECL allowances in the context of a developing country. It could assist preparers of annual financial statements by describing how the management of banks applied their judgement when integrating forward-looking information into the ECL calculation and allow the IASB to assess the effectiveness of IFRS 9 in times of crisis.

Literature review

This literature review explains the accounting treatment of ECLs under the IFRS reporting framework and the expected effect that COVID-19 will have thereon. It also provides an overview of previous empirical evidence relating to the impact of COVID-19 on ECLs.

The accounting treatment of expected credit losses under the International Financial Reporting Standard 9

The GFC accentuated the need to replace IAS 39 (Groff & Mörec 2021), as IAS 39 resulted in inconsistencies between various entities owing to a vast number of measurement options, less timely credit loss allowances and a disjoint between accounting outcomes and business activities (Beerbaum 2020). Effective for financial years beginning on or after 01 January 2018, IAS 39 was replaced by IFRS 9. International Financial Reporting Standard 9's primary purpose is to prescribe the classification and measurement requirements for financial assets and liabilities (Groff & Mörec 2021). In terms of IFRS 9, there are three categories in which financial assets can be classified, namely amortised cost, fair value through profit and loss and fair value through other comprehensive income (IASB 2014). The category classification is dependent on the business model in which the entity holds the asset, as well as the contractual cash flow characteristics of the asset (IASB 2014).

The paradigm shift from IAS 39 to IFRS 9 is said to be the impairment model used (Beerbaum 2020), as IFRS 9 includes expectations relating to future credit defaults in calculating the allowance for credit losses (Gebhardt 2016). This 'expected credit loss' impairment model of IFRS 9 replaced the 'incurred credit loss' impairment model of IAS 39, which only recognised credit losses when a credit event had occurred (Groff & Mörec 2021). The incurred loss model of IAS 39 was extensively criticised during the GFC, as it deferred the recognition of credit losses until too late in the credit cycle, thereby aggravating the procyclicality of bank lending and leading to decreased financial stability (Dong & Oberson 2022; Novotny-Farkas 2016).

International Financial Reporting Standard 9 allows for the recognition of impairment losses on financial assets measured at amortised cost, as well as investments in debt carried at fair value through other comprehensive income (IASB 2014). International Financial Reporting Standard 9 specifies three stages into which such a financial asset must be categorised when measuring its ECL allowance (IASB 2014):

- Stage one: A financial asset is categorised within this stage if there has not been a significant increase in credit risk (SICR) since initial recognition. The ECL allowance is then equal to the ECLs expected over the next 12 months (referred to as the 12-month ECLs).
- Stage two: A financial asset falls within stage two if there has been a SICR since initial recognition. The impairment is then measured at the lifetime ECLs. However, a financial asset that falls within stage two must not be credit impaired.
- Stage three: A financial asset that is credit impaired is categorised as stage three. In this instance, the impairment

should also reflect the lifetime ECLs, but the ECL allowance will also accrue effective interest, thereby decreasing the accounting interest reported on such an investment.

Therefore, the stage into which a financial asset is categorised for impairment purposes is dependent on whether there has been a SICR as well as whether the asset is credit impaired, the determination of which requires extensive managerial judgement (Gebhardt 2016). The assessment of whether an increase in credit risk is significant considers any risk of default and any changes thereto from the initial recognition of the asset (Humblot 2021). Past, present and forecasted economic conditions must be considered in determining whether there has been a SICR (Humblot 2021), again emphasising the amount of managerial discretion required in estimating ECLs (Gebhardt 2016). Credit-impaired financial assets are financial assets whose credit quality has deteriorated significantly over time and which have suffered an extortionate increase in credit risk (Di Laurea 2016), which is also subjectively determined.

The goal of accounting is to provide decision-useful financial information to stakeholders (Dong & Oberson 2022). Proper application of IFRS 9's ECL model requires extensive management judgement to integrate forward-looking information into the modelling process (Dong & Oberson 2022; Novotny-Farkas 2016) – necessitating quality disclosures in annual financial statements to reduce information asymmetry and decrease the risk of earnings management through ECL allowances (Stander 2021).

The expected effect of COVID-19 on expected credit losses

The effects of COVID-19 have been devastating, with many entities encountering going-concern issues (World Health Organization 2020). As a result, an entity's management should consider the impact of COVID-19 on the ECLs of loans and advances, focusing specifically on whether allowance is made for only 12-month ECLs or lifetime ECLs (Hladika 2021; PricewaterhouseCoopers 2020). With more defaults, many credit exposures could move from stage one to stage two, and as a result, the ECLs will rather reflect the lifetime ECLs than only the credit losses expected in the following financial year (Hladika 2021; KPMG 2020). Therefore, an increase in the ECL allowance is expected during the pandemic (Anisere-Hameed 2021; Gope & Mitra 2022; Hladika 2021).

Debt lenders may offer relief to debt borrowers because of COVID-19. Payment holidays (a postponement on the borrower's regular monthly payments) are a common form of relief provided (PricewaterhouseCoopers 2020). International Financial Reporting Standard 9 states that there is a rebuttable presumption that the credit risk of a financial asset has increased significantly if the borrower defaults in making payment for more than 30 days (IASB 2014). Thus, where payment holidays are introduced, debt lenders need to reconsider a low credit risk rating (Deloitte 2020) and consider whether granting payment holidays indicates a SICR or, possibly, a default – which could move the asset to stage two or three of the ECL model (PricewaterhouseCoopers 2020). However, an extension of payment holidays granted to all borrowers of a specific financial instrument does not automatically result in a SICR (IASB 2020), as payment holidays may also reduce the lifetime risk of default (European Securities and Market Authority 2020). This was also confirmed by the South African Reserve Bank Directive 3 (D3/2020), which dealt with the treatment of credit restructuring because of COVID-19 (South African Reserve Bank 2020). Loans that were up to date prior to COVID-19 restructuring and which were expected to remain up to date were viewed as not having a SICR as a result of the restructuring (South African Reserve Bank 2020).

According to Deloitte (2020), all reasonable and supportable forward-looking information must be reflected in the ECL estimation. Many assumptions are necessary; thus, management needs to exercise professional judgement and regularly reassess these assumptions given the ongoing uncertainty caused by COVID-19 (Barnoussi, Howieson & Van Beest 2020). The three key inputs that influence the ECL modelling are (Deloitte 2020; PricewaterhouseCoopers 2020):

- the probability of default (a counterparty severely affected by COVID-19 would be more likely to default on payments)
- the exposure at default (i.e. the amount that is expected to be defaulted)
- the loss given default (the amount that is expected to be defaulted minus the fair value of any collateral held).

Deloitte (2020) mentions that the measurement of ECLs for banks is an especially challenging task, because it includes estimations of credit events and their consequential cash shortfalls, which are based on a probability-weighted approach. In times of uncertainty, such as during COVID-19, these estimations become even more complicated. Barnoussi et al. (2020) were concerned about prudential banking regulators denying the impact of COVID-19 on ECLs, as the appropriate forward-looking information to be employed should include adverse events related to the spread of COVID-19. However, the forward-looking information used to estimate ECLs must be tempered by the requirements of IAS 10, which deals with events after the reporting period (IASB 2014). Entities need to distinguish between events that arose after year-end (that reflect new events and should be excluded from the ECL calculation) as opposed to those that were reasonably expected at year-end and should be included in the forward-looking assessment made (Deloitte 2020). Incorrect application of judgement in this regard would result in the inappropriate use of hindsight at the reporting date (Deloitte 2020).

When developing estimates for SICR and ECLs, entities need to look at historical information, current conditions and project future economic circumstances (IASB 2020). These projections could include the expected level of economic

activity and unemployment (Dong & Oberson 2022). If the effects of COVID-19 cannot be appropriately captured by existing modelling techniques, then postmodel adjustments or overlays can be employed. Binder Dijker Otto (BDO) (2020), for example, states that some entities use underlying software and computer models to calculate ECLs, which only consider historical information and not necessarily new information relating to the current and future environment – necessitating postmodel adjustments.

According to the Association of Chartered Certified Accountants (ACCA) (2020), the uncertainty caused by COVID-19 creates challenges for management, and it remains pivotal that auditors question management when they make judgements. The ACCA noted that auditors should place increased focus on ECLs to ensure that the assumptions made by management are appropriate (ACCA 2020). The allowance for ECLs is likely to become a key audit matter for banks during COVID-19, if it was not already one before the pandemic, as it is an accounting estimate with high estimation uncertainty (Brouwer et al. 2021).

Previous studies considering the effect of COVID-19 on expected credit losses

Two prior studies (Anisere-Hameed 2021; Gope & Mitra 2022) relating to the effect of COVID-19 on ECLs did not specifically focus on banks. Anisere-Hameed (2021) studied nine Nigerian companies listed in three sectors of the Nigerian Stock Exchange, while Gope and Mitra (2022) studied 50 Indian-listed companies. Financial information relating to the 2020 financial year (the first year affected by COVID-19) was compared with the 2019 financial year (Anisere-Hameed 2021; Gope & Mitra 2022). Neither Anisere-Hameed (2021) nor Gope and Mitra (2022) reported descriptive statistics relating to the change in ECLs, but both studies identified a significant change in the monetary value of ECLs during COVID-19.

Three prior studies (Brouwer et al. 2021; Engelmann & Lam Nguyen 2022; Hladika 2021) specifically considered the effect of COVID-19 on the ECLs of banks reporting under IFRS. While Engelmann and Lam Nguyen (2022) and Hladika (2021) merely reported on the banks' loan quality and ECLs using quantitative measures, Brouwer et al. (2021) undertook a more in-depth study by also including qualitative data relating the ECLs. Engelmann and Lam Nguyen (2022) considered data from a large number of banks from all over the world, while Hladika (2021) focused only on banks from Croatia. Brouwer et al. (2021) studied 'global systematically important' banks situated in Europe, North America and Asia. All these previous studies employed a form of content analysis where the data were hand-collected from the annual financial statements of the sampled banks.

Regarding loan quality (i.e. the IFRS 9 stages into which loans are categorised), Hladika (2021) found that the percentage of Croatian bank loans that were nonperforming (stage three) stayed relatively unchanged in 2020 at 5.4% of total loans (2019 was 5.5%). Engelmann and Lam Nguyen (2022), however, found that the staging of loans changed significantly from 2019 to 2020 when considering worldwide data. The percentage of loans categorised as stage three differed substantially between different geographical regions (Engelmann & Lam Nguyen 2022). Stage three loans exceeded 5% of total loans for banks in Eastern Europe, Latin America and Africa, which was substantially higher than the rest of the world (Engelmann & Lam Nguyen 2022).

Banks in Croatia reported a 38% increase in the ECL allowance from 2019 to 2020 (Hladika 2021). Hladika (2021) calculated this increase by considering the change in the ECL allowance on the statement of financial position. Engelmann and Lam Nguyen (2022), however, calculated the ECL allowance as a percentage of total loans and showed that the percentage increased significantly during the first year affected by the COVID-19 pandemic (2020). However, the ECL allowance as a percentage of total loans differed between regions: while the worldwide average ECL allowance constituted 2% of total loans in 2020, banks in Eastern Europe (6.2%), Latin America (4.9%) and Africa (3.4%) reported substantially higher percentages (Engelmann & Lam Nguyen 2022).

When considering only banks reporting under IFRS, Brouwer et al. (2021) found that the ECL allowance as a percentage of loans increased from 1.6% in 2019 to 1.8% in 2020. The ECL allowance for banks reporting under United States generally accepted accounting principles (US GAAP) showed a larger increase (from 0.9% of loans in 2019 to 1.9% of loans in 2020), possibly because of the proactive communication by the IASB and European regulatory bodies indicating that relief measures do not automatically trigger an SICR (Brouwer et al. 2021). In addition to gathering quantitative data on ECLs, Brouwer et al. (2021) also reviewed the narrative information relating to ECLs provided in annual financial statements and audit reports. According to Brouwer et al. (2021), 83% of banks reporting under IFRS granted payment holidays to clients and explained the effect thereof on the financial statements, while only 72% explained the effect of payment holidays on determining whether an SICR had occurred. However, all banks disclosed an explanation of what they defined as an SICR and how they employed forward-looking information, such as estimates of macro-economic information, into their calculation of ECLs (Brouwer et al. 2021). Only 56% of the IFRS-reporting banks explained their postmodel adjustments in financial statement disclosure (Brouwer et al. 2021), which reduced the decision-usefulness of financial information. The allowance for ECLs was identified as a key audit matter in the audit report of all banks reporting under IFRS – indicating that auditors were placing increased emphasis on this figure (Brouwer et al. 2021).

Research methodology

The objective of this study was to explore the effects of COVID-19 on the accounting treatment of ECLs by South African listed banks. This section describes the sample selected as well as the data collection and analysis procedures employed.

Sample selection

The population of this study was determined as banks that have a primary listing on the main board of the Johannesburg Stock Exchange. These banks were selected to form part of the population as they are required to prepare their annual financial statements in accordance with IFRS (Johannesburg Stock Exchange Limited 2019). The five largest banks, based on market capitalisation as at 28 February 2021, were selected as a sample. These were Nedbank Group Limited ('Nedbank'), Absa Group Limited ('Absa'), Capitec Bank Holdings ('Capitec'), FirstRand Limited ('FirstRand') and Standard Bank Group ('Standard Bank').

Data collection and analysis

For the banks in the sample, the first year affected by the COVID-19 pandemic was identified. This was the 2020 financial year for four of the banks, while it was the 2021 financial year for Capitec as it has a February year-end. The annual financial statements for the first year affected by COVID-19, as well as the two years prior, were obtained from the official websites of the banks. As in the work of Brouwer et al. (2021), content analysis was applied as a data collection method, hand-collecting both quantitative and qualitative data from annual financial statements and audit reports.

Based on the issues identified during the literature review, specifically considering Brouwer et al. (2021), five research questions were identified relating to the effect of COVID-19 on accounting for ECLs:

1. Was there a change in the loan quality and ECL allowance during COVID-19?
2. Which COVID-19 relief measures (payment holidays, debt restructuring, etc.) were applied, and did these relief measures trigger a SICR?
3. How was judgement and forward-looking information employed to estimate ECLs?
4. How were postmodel adjustments incorporated into the ECL allowance?
5. Was the ECL allowance a key audit matter?

For research question 1, quantitative data relating to the loan quality and ECL allowance, in line with Brouwer et al. (2021), Engelmann and Lam Nguyen (2022) and Hladika (2021), were collected and analysed through descriptive statistics. The analysis focused on the first year affected by COVID-19 (2020 or 2021, depending on year-end), but the prior year's annual financial statements were also studied to enable comparisons between the 'during COVID-19' year and the 'pre-COVID-19' year. Where year-on-year trend analyses (i.e. the percentage change in loans or ECL allowance from a prior year to the current year) were performed, the annual financial statements of the first year affected by COVID-19 as well as two comparative years were employed.

For the rest of the research questions, qualitative data were collected by scrutinising the notes to the annual financial statements and the audit report in the first year affected by COVID-19, in line with Brouwer et al. (2021). The data were analysed to answer the specific research question. For research question 2, the COVID-19 relief measures were identified and grouped, after which it was determined whether the relief measures triggered a SICR. To address research questions 3 and 4, the notes to the annual financial statements were read to identify how each bank employed judgement and forward-looking information to estimate ECLs, and how postmodel adjustments were incorporated. For research question 5, the audit report was scrutinised to determine whether ECLs constituted a key audit matter.

Ethical considerations

Ethical clearance was obtained from the Stellenbosch University Research Ethics Committee (REC) (project number ACC-2021-23708). The REC deemed the project to be exempt as only publicly available data (annual financial statement disclosures) were employed.

Results and findings

This section includes the results and findings which were extracted from the disclosure of the banks' annual financial statements and audit report. The sections to follow are structured to address each of the research questions separately.

Change in the loan quality and expected credit loss allowance

This section considers whether there was a change in the loan quality and ECL allowance during the first year affected by COVID-19. The third column in Table 1 shows the year-on-year change in the gross loans and advances (hereafter, loans) balance for each of the five banks for 2020 and 2019 (Capitec 2020, 2021). Columns four to six in Table 1 report the percentage of loans that were subject to the different stages of IFRS 9, per bank and per year.

Overall, and for every bank except Standard Bank, Table 1 shows a smaller increase in total loans in the first year affected by COVID-19 than the prior year. This may indicate that banks were less willing to give out loans to clients during the COVID-19 pandemic than in previous years. In fact, Capitec and FirstRand had a decrease in loans. Smaller increases in loans were noticed during COVID-19, even though the demand for financing by the public during the pandemic was likely to have risen.

Table 1 also indicates a shift between stages. All five banks recorded a decrease in the percentage of their loans subject to stage one during the COVID-19 pandemic. This decrease led to an increase in the portion of their loans subject to stage two and stage three and signals a decrease in loan quality. The decreased loan quality in South African banks during COVID-19 differed from Hladika's (2021) finding that the percentage of loans categorised as stage three did not increase when considering Croatian banks but agreed with Engelmann and Lam Nguyen (2022), who reported that the percentage of

TABLE 1: Change in loans and stage allocation.

Bank name	Years	Percentage increase in loans (year-on-year) (%)	Percentage of loans classified as stage 1 (%)	Percentage of loans classified as stage 2 (%)	Percentage of loans classified as stage 3 (%)
Nedbank	2020	3	72	11	5
	2019	12	81	9	3
Absa	2020	3	80	12	7
	2019	9	83	8	5
Capitec	2021	-2	60	16	24
	2020	17	74	9	18
FirstRand	2020	-2	86	8	5
	2019	7	90	6	4
Standard Bank	2020	8	88	10	6
	2019	5	91	8	4
Total for all five banks	During COVID-19	3	82	10	6
	Pre-COVID-19	8	86	8	4

TABLE 2: Change in expected credit loss allowance.

Banks	Years	Percentage change in ECL allowance (year-on-year) (%)	ECL allowance as percentage of loans (%)
Nedbank	2020	43	3
	2019	13	2
Absa	2020	46	5
	2019	1	3
Capitec	2021	28	27
	2020	18	21
FirstRand	2020	38	4
	2019	18	3
Standard Bank	2020	42	4
	2019	-4	3
Total for all five banks	During COVID-19	41	4
	Pre-COVID-19	6	3

ECL, expected credit loss.

stage three loans increased during 2020 when considering worldwide data.

The movement in stages (Table 1) occurred even though the COVID-19 relief measures (discussed in Section 4.2) did not automatically trigger an SICR. Standard Bank, for example, experienced positive collection patterns and strong performance in the latter part of 2020, but they still transferred a substantial portion of their loans from stage one to stages two and three (Standard Bank 2020). It is evident that all five banks assessed COVID-19 to cause a SICR for some loans, which resulted in a larger percentage of the ECL allowance being calculated using the lifetime ECLs instead of the 12-month ECLs – leading to a larger ECL allowance (see Table 2). Table 2 shows the year-on-year change in the ECL allowance per bank for 2020 and 2019 (Capitec 2020, 2021), as well as this allowance as a percentage of loans.

The third column in Table 2 illustrates the substantial increase in the ECL allowance during 2020. This increase is similar to the 38% increase in the ECL allowance reported by Hladika (2021) for banks in Croatia during 2020. The fourth column in Table 2 reports the ECL allowance as a percentage of loans, to enable comparison with Brouwer et al. (2021) and Engelmann and Lam Nguyen (2022). Expected credit loss allowance as a percentage of loans was higher for South African banks than for the IFRS-applying banks in Europe, North America and Asia studied by Brouwer et al. (2021). It was, however, similar to the percentage reported by Engelmann and Lam Nguyen (2022) for African banks, emphasising that different regions have differing ECL allowances.

Absa's consolidated financial statements for 2020 state that:

> The most significant impact of the COVID-19 pandemic and the resulting economic downturn on the Group's results was credit impairments, particularly given that IFRS 9 requires provisions for expected future credit losses. (Absa 2020:12)

In Standard Bank's financial statements, it was said that the increase in impairment was primarily attributable to constrained collections and protraction caused by COVID-19 restrictions, increased provisioning owing to the weakened economic outlook as well as changes from stage one to stages two and three because of the strain of the pandemic (Standard Bank 2020). The quantitative increase in the ECL allowance because of COVID-19 makes it evident that the economic circumstances that affected banks during the pandemic led to a higher probability of defaults and larger amounts being subject to lifetime ECLs (Table 1). The quantitative increase in the ECL allowance necessitates quality disclosure regarding the application of managerial judgement in the ECL calculation.

COVID-19 relief measures and their impact on significant increase in credit risk

The COVID-19 lockdown created tremendous economic distress that required revisions to collection processes of financial assets as well as payment relief measures (FirstRand Bank 2020). In this section, the type of relief provided by the banks as well as the customers affected will be discussed. All five banks provided credit relief to their customers. This is similar to the findings of Brouwer et al. (2021), who reported that the majority of banks granted payment holidays to clients and explained the effects thereof on the financial statements.

FirstRand offered traditional payment holidays and optional extended balloon payments to its retail customers (FirstRand Bank 2020). Nedbank established relief programmes to retail as well as wholesale banking clients. This included refinancing,

credit restructuring, payment deferrals and covenant waivers (Nedbank 2020). Absa's COVID-19 relief response consisted of granting payment relief to all customers in the form of fee waivers, insurance premium relief and the expansion of credit life cover (Absa 2020). Standard Bank provided COVID-19 relief to their personal and business banking clients in the form of increased liquidity facilities, loan restructuring, covenant relaxations and payment holidays (Standard Bank 2020). Capitec's COVID-19 relief took the form of payment breaks and variable payment rescheduling to all customers (Capitec 2021).

As mentioned in the literature review, the provision of COVID-19 relief does not automatically trigger a SICR, in line with D3/2020. All five banks adopted a strict implementation of D3/2020 during the 2020 (Capitec 2021) financial year. Loans restructured after 29 February 2020 were classified as a 'D3/2020 restructure' or 'COVID-19 loan restructure'. Certain conditions had to be met for loans to be classified as such, including the loans being up to date (with no arrears) as of 29 February 2020. Coronavirus disease 2019–related factors led to the restructuring and the loans were expected to keep their 'up-to-date status' after the relief period ended (Nedbank 2020). The D3/2020 restructures remained in their specific stage classifications (stage one or stage two), instead of being classified as credit impaired because of a distressed restructure (Nedbank 2020). This showed that the banks applied D3/2020 appropriately in determining the IFRS 9 stage into which a loan was categorised.

Use of judgement and forward-looking information

Similar to the findings of Brouwer et al. (2021) on banks in Europe, North America and Asia, all five South African banks incorporated judgements and forward-looking assumptions into their ECL calculations in a unique manner, which emphasises the subjectivity involved in calculating ECL allowances. The assessment of SICR especially involves estimation uncertainty (Nedbank 2020). For Nedbank, the main judgements emanating from COVID-19 were the expected duration of the pandemic, the form and rate of economic recovery, the success of COVID-19 containment measures and related lockdowns as well as domestic and international policy responses and the effect thereof (Nedbank 2020). Nedbank performed a historical analysis for every portfolio with the assistance of specialists. This assisted them with their eventual ECL forecasts (Nedbank 2020).

FirstRand revised their macro-economic prospects for 2020–2021, with substantial downward revisions to fundamental economic variables impacting the group's operations. This includes a contraction of 8% in real gross domestic product, weak property markets and a substantial increase in unemployment. These revisions were incorporated into the models regarding ECL allowances (FirstRand Bank 2020). The macro-economic forecasts and assumptions required careful considerations regarding the upside and downside risk of the South African economy. Appropriate weightings towards specific macro-economic scenarios were determined, and this required significant management judgement (Nedbank 2020). Standard Bank, for example, considered a range of base, bullish and bearish forward-looking economic expectations (Standard Bank 2020). Disclosures in the annual financial statements thus provided users with quality information regarding management's application of judgement and the integration of forward-looking information, similar to the findings of Brouwer et al. (2021).

Postmodel adjustments

The ECL estimation must reflect an objective and probability-weighted approximation of future losses by considering a wide range of macro-economic scenarios (Absa 2020). As credit models are not calibrated for black swan events, such as the COVID-19 pandemic, management must apply substantial judgement when quantifying the ECL allowance to accurately reflect future losses (Absa 2020). Postmodel adjustments are used to adjust for known model and data deficiencies and to account for emerging or developing information for which there is insufficient data and/or time to update models accordingly (Nedbank 2020). Included in the postmodel adjustments are the effects of easing lockdown restrictions, the risk of resurgence of the virus as well as the effect of COVID-19 relief packages on the quantification of ECLs (Absa 2020).

All five of the banks analysed increased their ECL charge with postmodel adjustments relating specifically to COVID-19. However, Nedbank is the only bank that disclosed COVID-19 postmodel adjustments (1986 million rands) and non-COVID-19 postmodel adjustments (726 million rands) separately. The other banks increased their ECL charge with a single postmodel adjustment but disclosed that the substantial increase was because of uncertainties pertaining to COVID-19. These findings agree with Brouwer et al. (2021), who reported that only 56% of the IFRS-reporting banks in Europe, North America and Asia explained their postmodel adjustments in financial statement disclosure.

Key audit matter

The ECL allowance was seen as a key audit matter for all five banks examined in this study, as also reported by Brouwer et al. (2021). Reasons cited were the magnitude and materiality of the allowance, as well as the high level of judgement involved, which is aggravated by the ongoing macro-economic impact of the COVID-19 pandemic (FirstRand Bank 2020; Nedbank 2020). Identification as a key audit matter confirms that the ECL allowances by the sample banks during COVID-19 were comprehensively evaluated by the banks' auditors and complied with the requirements of IFRS 9.

Overall assessment regarding expected credit loss disclosure quality during COVID-19

Each bank made use of their own modelling techniques, exercising judgement and employing forward-looking

information and postmodel adjustments differently. Thus, the effect of the COVID-19 pandemic was accounted for in different ways, and to varying extents, in the ECL allowances recorded in the annual financial statements of South African listed banks. When ignoring postmodel adjustments, the disclosures in the annual financial statements provided decision-useful financial information on how banks' management exercised their judgement in determining the ECL allowance. Disclosure relating to postmodel adjustments could, however, be more comprehensive – to ensure that users understand the factors that are being adjusted for, why they are incorporated through postmodel adjustments and their respective financial effects.

Conclusion

The COVID-19 pandemic was expected to affect banks' ECL allowances, increasing it in magnitude and requiring increased management judgement to incorporate forward-looking information. Comprehensive disclosure regarding ECLs would reduce information asymmetry and increase the decision-usefulness of financial information. The objective of this study was to explore the effects of COVID-19 on the measurement and disclosure of ECLs in line with IFRS 9, with a focus on South African listed banks. Both quantitative and qualitative data were hand-collected from annual financial statements for a sample of listed South African banks. During the first year of the COVID-19 pandemic, a larger percentage of the loans were classified as stages two and three, leading to a larger portion of the loans being subject to lifetime ECLs (in contrast to only 12-month ECLs). Consequently, the ECL allowance increased substantially during the first year of the pandemic.

South African listed banks employed a variety of relief measures to accommodate borrowers. In line with D3/2020, these relief measures did not automatically trigger a SICR, although a SICR was noted in many cases owing to the incorporation of forward-looking information. Each bank employed their own modelling techniques, judgements, forward-looking information and postmodel adjustments in measuring their ECL allowance. Except regarding postmodel adjustment, comprehensive disclosure in annual financial statements produced quality information, mirroring developed countries. Improved disclosure regarding postmodel adjustments is, however, required to enhance the decision-usefulness of ECL information. Identifying ECLs as a key audit matter provided evidence of adequate oversight relating to the calculation of the ECL allowance by auditors.

As only South African banks were studied, the results of this study cannot be extrapolated and applied to other geographical locations. Although the sample is an adequate representation of the public banking sector in South Africa, the results are not representative of nonlisted banks in South Africa. Furthermore, only information relating to the first year of the pandemic was considered. This lends an opportunity for future studies to expand on this topic in later years when more data are available relating to the effects of the COVID-19 pandemic.

Clarity on the accounting treatment of banks' ECLs in a developing country during the COVID-19 pandemic contributes to the body of accounting knowledge and specifically the debate on whether IFRS 9 provides decision-useful financial information during a period of economic downturn. Moreover, the research's findings could help standard setters, such as the IASB, evaluate the effectiveness of the newly issued IFRS 9 in the context of a developing country. Preparers of annual financial statements could benefit from the descriptions of how the management of banks applied their judgement in calculating ECLs. The research could also be useful to shareholders of South African listed banks in evaluating the ECL allowances and the disclosure relating thereto in annual financial statements. Auditors of banks could employ the findings when considering the adequacy of ECL calculations by their clients.

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Authors' contributions

All authors were involved during the conceptualisation of the research. V.N. and K.O. performed the initial literature review, while S.Z. was responsible for methodology. F.K., R.W. and A.v.d.S. collected and analysed the data. S.W., T.C. and G.S. were responsible for second-level writing, ensuring flow in the document, as well as review and editing. G.S. acted as supervisor.

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Data availability

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